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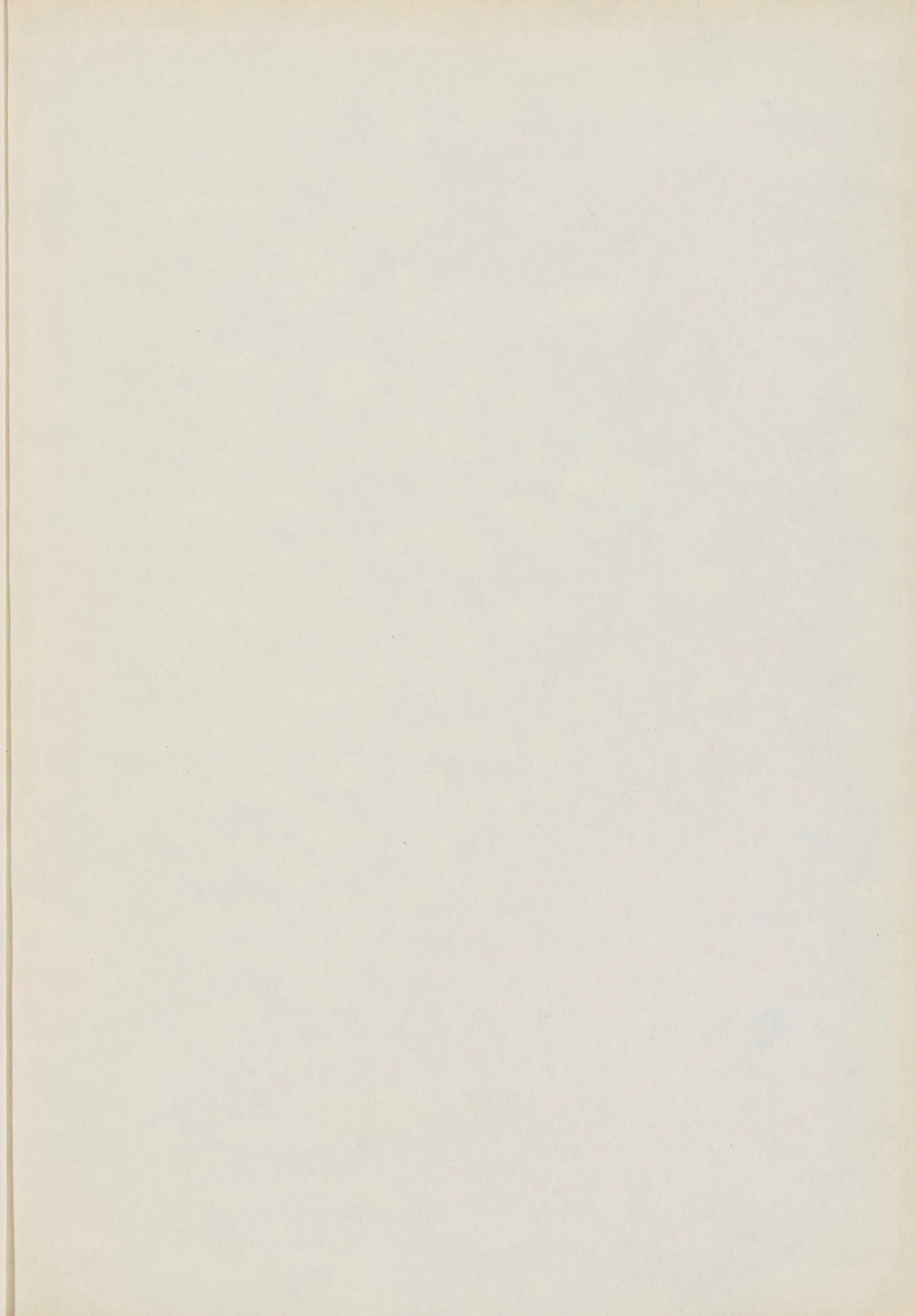
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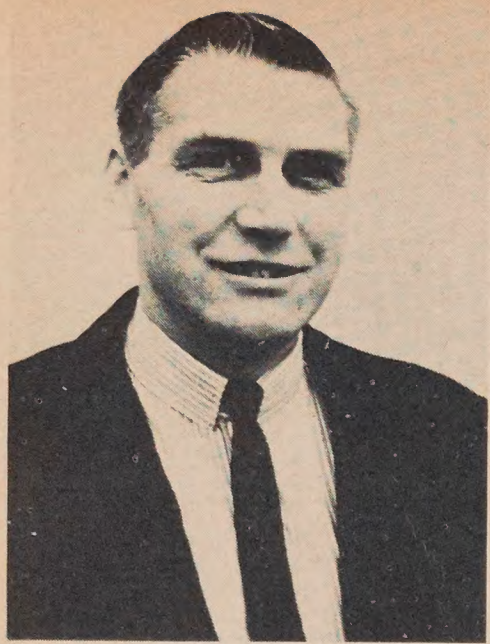
JANUARY 1971

For The
*Northeast
Farmer*

American Agriculturist
and the
RURAL NEW YORKER



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Jay Irwin



William Messersmith

NEW ROLE

With America's unprecedented flight from city to suburbia over the past several years, the county agricultural agent has had to assume a different role than that of strictly "farmer's friend."

He has revised old programs and methods . . . and improvised new ones to meet the challenge of change. More and more, he is involved in 4-H programs that have been expanded to help teach city youngsters the skills and arts that young people in rural areas have known about for years.

One area where county agents have shown great initiative is in

devising career guidance programs to help steer young people into agribusiness careers. Some of the agents who had outstanding programs along these lines during the past year were recently honored for their work by the National Association of County Agricultural Agents, and New Holland, the farm machinery division of Sperry Rand, sponsor of the association's career guidance program.

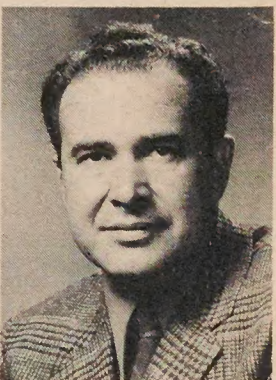
Two of those honored were associate county agents in Pennsylvania . . . Jay Irwin, Lancaster County, and William Messersmith, Lycoming County.

Irwin has received support from all the county guidance counselors in presenting the 4-H program, "My Future Is What I Make It." An increasing number of high schools are including the program in their curriculum.

Messersmith used a similar program and received assistance from the area resource development agent, the Department of Labor and Industry, and other agencies.

MILK MARKETING

Dairymen across New York State will be seeing Walter Wasserman of Auburn . . . recently appointed a milk marketingspecialist at the New York State College of Agriculture.



Walter Wasserman

He will develop milk marketing programs, as well as work with dairy cooperatives and other dairy businesses in coordinating Extension programs with their educational efforts.

Walt has been working as a county agent specializing in dairy since 1957. His office will be at the Farm, Home and 4-H Center in Auburn.



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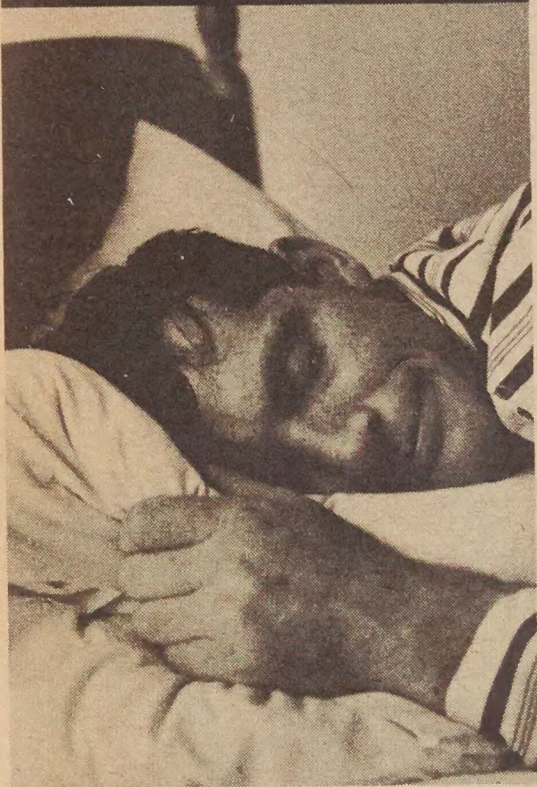


Outstanding Young People — Named as outstanding 4-H young people in New York State working with various breeds of dairy cattle have been: Bradley Conklin, son of Mr. and Mrs. Richard Conklin of St. Lawrence County, (Ayrshire); Dorothea DeHart, daughter of Mr. and Mrs. Raymond DeHart of Cortland County, (Ayrshire); Gerald Parry, son of Mr. and Mrs. Roger Parry of Chenango County, (Jersey); Linda Archibald, daughter of Mr. and Mrs. James Archibald of Delaware County, (Jersey).

Miss Aliceann Gibbs, Penn Yan, won the 1970 New York State Duncklee Award, presented by the State Jersey Cattle Club, for her success in 4-H dairy projects.

American Agriculturist, January, 1971

sleep well



Chores all done. A fine meal. Got some paper work done and watched some TV. It sure is easier turning in at night knowing some important things never go to sleep. Like the protection from Farm Family Insurance Companies. Covers the whole farm, too. Buildings. Equipment. Even family and personal belongings. Here's a company that proves they know farm problems by all the different plans and programs they have. You might say you owe it to the farm to talk with a representative from Farm Family. Chances are you'll sleep a little better.

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Vol. 168, No. 1

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R. C. ChristiansonV.P. Advertising
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OUR COVER

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EDITORIALS

by GORDON CONKLIN



PESTICIDE REGULATIONS

Elsewhere in this issue, you'll find information about a major change in regulations concerning how pesticides are to be distributed and used in New York State.

As I see it, there are several potential pluses for agriculture in these new rules.

First, the amateur won't be able to purchase extremely toxic pesticides . . . avoiding the tragic consequences that may follow. The hue and cry to ban all pesticides is immeasurably strengthened when some uninformed person becomes ill from slopping some really "hot" material on his rose bushes.

Second, some very persistent chemicals will be reserved for use only in emergencies involving public health. My brother, who has traveled widely in South and Central America, reports that persistent DDT has done more to increase food production potential in the tropics than any other single thing . . . and it has also controlled the scourges of malaria and yellow fever. Empire State people, though, have joined the rest of the states for years in worrying about food surpluses in the U.S., and fortunately don't need to worry about the diseases mentioned.

The argument still rages over just how deleterious persistent pesticides really are to the environment, but the new regulations should at least get some extremely vociferous antipollution people off farmers' backs.

Fortunately, the new regulations will force the non-farm homeowner to share the burdens imposed. He'll find it more expensive to apply some needed pesticides . . . because he'll have to hire it done by a custom operator. He'll have an extra battle on his hands in controlling cockroaches, woodboring beetles, and other household pests. But pollution to most people has always meant something for which the "other guy" is responsible . . . and reality (as well as justice) demands that **everyone** benefiting from the use of pesticides be involved in paying the price inherent in the strict regulation of them.

There are potential drawbacks to the new rules, or course. Their dimension depends primarily on the people who will be enforcing the regulations. Hopefully, there will not be long delays between the application for permits and the processing of those applications . . . and that farmers caught in emergency situations will meet with an understanding attitude on the part of regulatory officials.

Let's try as hard as we know how to make the new setup work!

ECONOMIC FORMULA

For some time now, a debate has been going on concerning the advisability of using a national economic formula for pricing Class I milk in federal order markets. At one time, some federal order markets (including New York-New Jersey) did use an economic formula . . . at least one for as long as 20 years or more.

Under the proposed economic formula . . . the one recently turned down by the USDA . . . the formula index would be computed from ten "movers" that would

reflect such things as the ability of consumers to buy, cost items in the production of milk, and prices of manufactured dairy products. In its decision, USDA spokesmen used several times the phrase "in the public interest" and the implication seemed to be that the term was synonymous with **low prices to the consumer**.

Contrast the kind of bargaining that takes place at a milk marketing hearing with that occurring at the confrontation of General Motors and UAW representatives. There, "the public interest" be damned! UAW negotiators won an economic formula for **their** rank and file . . . hooking wages to a cost-of-living index that would automatically protect workers' earnings from the ravages of inflation.

The bargaining power of farmers will always be limited as long as their economic negotiations proceed through government channels . . . because of the obvious fact that elected officials **must** be responsive to the 95 percent of non-farmers in our society.

It's my guess that any legislative clout possessed by farmers will have to be based on their **economic** power, not their limited political strength. Both in total assets and in gross income, farming ranks high on the scale of U.S. business activity.

Sure, on some issues . . . taxes, schools, better roads . . . farmers can pick up the political support of many rural non-farmers, and even urban people. But on the question of bargaining for higher at-farm prices, it's too much to expect help from people whose finances would be directly diminished if farmers were to fare better in the marketplace.

What's your idea of how farmers can attain some measure of the kind of bargaining muscle achieved by the United Auto Workers? Or shouldn't farmers try?

DIFFERENT VIEWPOINT

The history of the dairy industry includes a gloomy chapter about the struggle by dairymen and their organizations to head off oleomargarine at the pass. Reading about it, one might conclude that grocery chains and food processors forced something upon American agriculture that was bitterly opposed by farmers.

Not so . . . some of the strongest supporters of oleomargarine were **farmers**. The American Soybean Association reported in a recent newsletter, "Soybean growers helped to open up the margarine market . . . not only through the repeal of the margarine laws, but also by providing a large and plentiful supply of soybean oil."

The Association celebrated its 50th anniversary in 1970 . . . and pointed proudly to the fact that this crop has grown since 1920 from one used chiefly for forage to one selling a **billion bushels** annually. It was a struggle all the way up that hill . . . and part of the battle was against fellow farmers on the other side of the fence.

Let's not kid ourselves; there is an enormous amount of competition between farmers in 1971 . . . just as there was in 1920. The dairymen and soybean growers are still opposed on several fronts, including the matter of foreign trade.

Japan became a billion-dollar-a-year customer for U. S. farm exports in 1970 . . .

SHOWN UP

by Donna Evleth

Although I like the TV ad
That's witty, zany, novel, mad,
I get to feeling rather low
When the commercial tops the show!

and a lot of that volume was soybeans. Dairymen, facing dairy product competition from Oceania and Western Europe, tend to favor restrictive trade policies. Soybean growers, looking happily toward overseas markets, fear import reprisals in foreign countries that could be touched off by tariff barriers and import quotas in the U. S.

The only reasonable solution . . . the art of compromise which is the keystone of realistic politics, both international and domestic.

THE FORGOTTEN MEN

War has always dehumanized mankind . . . and the one in Vietnam is no exception. It appears that the North Vietnamese may hold more than 1,000 Americans as prisoners of war . . . and evidence abounds that these prisoners are maltreated as judged by the standards developed by the Geneva Convention for Protection of War Victims.

All nations involved, by the way, have agreed to abide by the rules worked out at the Geneva Convention. However, relatives of Americans held by the North Vietnamese are deeply troubled by a long list of instances wherein prisoners have not received humane treatment.

Whatever our attitude toward the wisdom of . . . or justification for . . . this tragic conflict, we can join in seeking humanitarian treatment of both the prisoners and their relatives who longingly wait to hear from their loved ones now behind the grim Bamboo Curtain.

Because there are only a relatively few people whose loved ones languish in POW camps, the rest of us tend to overlook the problem. But if you want to help some hurting humans right now, sit down and write to:

Xuan Thuy, Chief Negotiator
North Vietnam Delegation
Paris Peace Talks
Paris, France

Don't beat on the North Vietnamese in your letter, but write as one human being to another . . . asking for a better shake for prisoners and their sorrowing families.

Affix a 20-cent airmail postage stamp, and send it along to join a massive "letter-lift." Somehow, a flood of such letters just may get through to the seemingly flinty hearts within the jailkeepers of the Orient.

THE NEGATIVES

It seems that Jack Armstrong died of malnutrition . . . Wheaties and all. God is labeled dead . . . the crisp smell of autumn is reported to be smoky air-pollution . . . and motherhood is attacked for threatening the earth with overpopulation.

Any day now, I expect to learn from "authoritative sources" that apple pie surely causes cancer.

Hopefully, my friends, you will shake a bit of salt on all the screaming from the housetops . . . and make a conscious decision to seek the pluses of life amidst the human frailty and tragedies that beset us all. In large measure, each of us shapes the nature of our days . . . according to the attitudes we adopt toward our world, and especially toward our fellow man.

American Agriculturist, January, 1971

LIVESTOCK



Short Course — Cornell University's 1971 Beef Cattlemen's Short Course this year is scheduled for January 18-22. Featured will be sessions on economic outlook, marketing, animal health, systems of beef production, and feeding and management.

Top-flight speakers have been booked, and anyone interested in beef production . . . experienced or beginner, purebred breeder or commercial producer . . . should find the program worthwhile. Special emphasis will be given to the type of cattle that breeders are striving for today, and the breeding programs being followed.

A registration fee of \$15 will be charged. The fee may be paid at the time of registration, but application for enrollment should be mailed to M. D. Lacy, Morrison Hall, Ithaca, New York 14850, no later than January 15, 1971.

♦♦♦

Catalog — Hard-to-get specialty items, including the new, 3-number saddle tags for milking parlors, pasture and range, are available in a new 1971 Farm and Ranch Supply catalog now ready for distribution. For a free copy of the new catalog, write: Agri-Industries, Box 6612, St. Paul, Minnesota 55106.

♦♦♦

High Lysine — Higher profits with high lysine corn have been reported by hog feeders in ten states participating in on-farm high lysine tests sponsored by Funk Bros. Seed Company. Co-operating feeders realized savings ranging from 1 cent to 2.4 cents per pound of gain from pigs fed high lysine as compared to those fed regular corn. A total of 1,523 hogs were fed out in the test.

All the high lysine corn fed in the test was grown by the co-operators in an earlier phase of Funk's test program.

♦♦♦

Stockyards — Steady declines in receipts of cattle and sheep are blamed for the Chicago Union Stockyards planned shut-down in February 1971. Hog operations were discontinued in May 1970. A group of livestock brokers has announced plans to build a new 33-acre stockyard about 50 miles from Chicago. The new location will not have slaughtering facilities.

♦♦♦

Top Horses — "Horse Management and Stock Seat Equitation" is the title of a 26-minute, 35 mm sound and color filmstrip on stock seat equitation, halter showmanship, the various breeds of Western horses, and a comprehensive management program for horses.

American Agriculturist, January, 1971

The filmstrip's theme is that top horses are not just hay and water machines. They are the product of a great deal of careful breeding and smart management . . . housing, feeding, exercise, training, grooming and health care.

The film, produced by Albers Milling Division of the Carnation Company, is available for showings to horse clubs, breeders, veterinarians and 4-H clubs. For information, check with any of the various Albers local dealers, or write to: Carnation Albers Company, 800 West 47th Street, Kansas City, Missouri 64112.

♦♦♦

Sheep Manual — All five major areas of sheep production . . . genetics, physiology of reproduction, nutrition, health and management . . . are covered in the new "Sheep Producer's Handbook" published by Sheep Industry Development, Inc. (SID).

The handbook, a completely indexed looseleaf notebook, is the result of almost three years of work in gathering the latest research information and putting it into a form that sheepmen will find practical and easy to use.

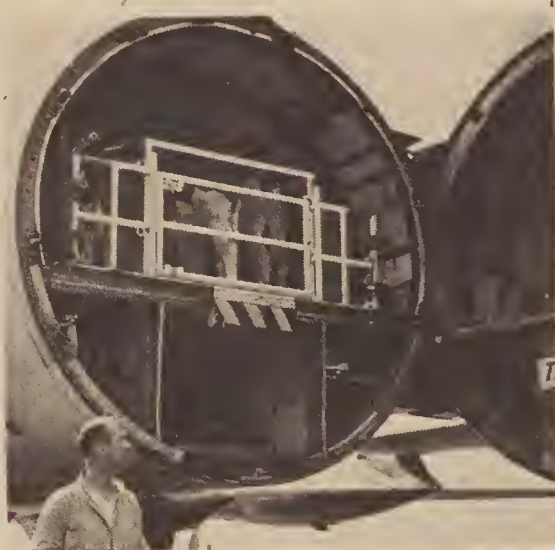
SID also plans to put out fact sheets based on the handbook. A study currently under way will show the profit potential of sheep under various management practices.

For your copy of the new manual, send \$5 (check or money order) to: Sheep Industry Development, Inc., 200 Clayton Street, Denver, Colorado 80206.

♦♦♦

Realism — At the last Eastern Angus Forum, this comment was made by livestock producer Bart Glass of Millbrook, New York, "We once based our breeding program on idealism. We formulated some idea of an ideal animal in our minds and proceeded to select for that kind. But the days of idealism are gone, and the days of realism are here. Our goal should not be to tell the commercial man what he wants. Rather we must produce a product that will make money for him."

♦♦♦



Here's the arrangement on the inside of an aircraft for shipping cattle overseas without putting them into individual pallets. This view shows the plane after all seats have been removed from the plane. C. T. Barns, Jr., director of export services for HFS, Inc., observes Holsteins ready for shipment to another country.

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Drench it, mix it with milk, or use it in any type of drinking water system.



TERRAMYCIN[®] ... NO. 1 FOR MASTITIS

Treat your cows with Terramycin for fast control and effective results against susceptible organisms that cause mastitis. And the tube-squeezer makes it easy.

A PFIZER 'BEST BUY'!

CAUTION: Milk taken from animals during treatment with Terramycin for Mastitis, and for 96 hours (8 milkings) after latest treatment, must not be used for food.

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Triple Value!

Three vitamins—not just one! One injection supplies enough Vit. A for months. Also has Vits. D₂ and E. In 30- and 100-cc. vials.

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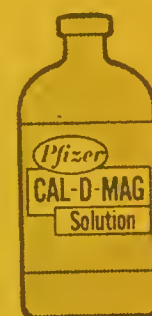
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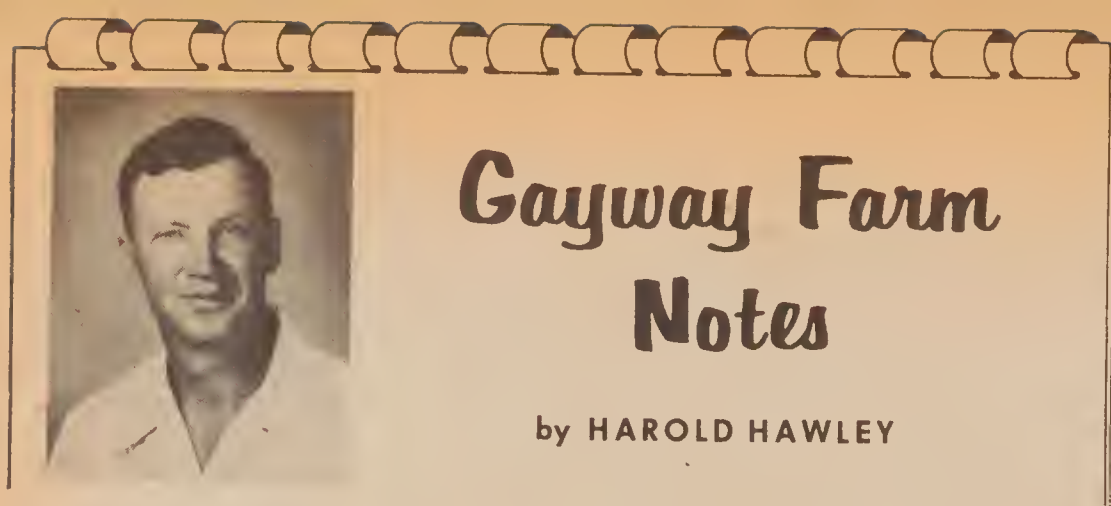


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Gayway Farm Notes

by HAROLD HAWLEY

A FRONT BURNER ISSUE

For several years there has been interest, talk, and some action to get a farm land assessment law passed in New York such as New Jersey and several other states have had for some time. It would provide that farmland should be assessed at its value for farming as long as it is used for that. When sold for another use it might then be reassessed at its value for the new use. Most proposals contained a provision that the farmer who sold such property would be required to pay taxes based on the new assessment for the preceding 3 to 5 years. This seems only fair.

There is widespread agreement among farm groups that differential assessment legislation is needed. The Governor has indicated his intention of seeking and supporting such a law.

It is one man's opinion that the support of the urban sector would be forthcoming and may be needed if we would point out to them that this special-interest legislation (and it is just that) would be of great long-run advantage.

Not only would the retention of good productive farms across the state mean readily available fresh food supplies but it would have immeasurable value in terms of the preservation of a good environment. Open spaces meet a great need physically but also aesthetically in man's quest for a better environment.

So let's talk with our urban counterparts and enlist their support for this legislation.

ANOTHER POINT OF VIEW

We don't bother to post our land, due to the time and expense involved and the general ineffectiveness of posting anyway. We do, however, have pretty strong convictions about people hunting without permission. We almost always tell those who ask to go ahead unless they are drinking or otherwise objectionable, and we usually ask those who come on without permission to leave and if they want to hunt some other time, come back and get permission.

When we go deer hunting we try to observe the same rules. But you know every now and again one gets interested in going a little further for a look-see at another patch of woods. First thing you know another landowner is your host whether he knows it or likes it.

Along about this time, one begins to have about the same

point of view as some of the pheasant hunters we get so put out with because they didn't ask permission first. Maybe being on both sides of this might make one a little more tolerant in due course of time.

SMELL THAT BUCKWHEAT

At the time that I was trying to learn something at Cornell the area north of Ithaca grew a lot of buckwheat.

I've many times recalled in my mind that pleasant aroma on the night air. To this day we roll down the car window as we drive by the very occasional field still being grown. So what happens? Nothing, absolutely nothing. There is no noticeable aroma.

Somebody please tell me why. I grant you that riding around the country roads at night with a nice co-ed might change one's perspective about some things, but certainly not about a field of buckwheat and its aroma. Have we changed varieties that much? or switched to a hybrid? or what?

Editor's Note: Write Harold Hawley, Gayway Farm, Weedsport, New York 13166.

BIGGER OPERATIONS

If one can read anything into what he sees, it is that multiple ownership arrangements are becoming more and more the thing in agriculture.

The large capital requirements almost compel new young farmers to settle for something less than ownership and indebtedness on the whole business.

Almost as important, though not so often mentioned, is the opportunity for the new man to acquire some experience without all of it being the hard expensive kind. With the volume of money involved, too many errors in judgment could be disastrous. Two heads might help to avoid these errors.

More and more, it appears, the multiple owners become specialists within the business. One is responsible for the cows or the crops or for a certain phase of the cropping program.

One successful large operation we know has delegated to one of the partners all the headaches associated with the labor hired on the place. All the hiring, working conditions, overseeing, timekeeping, etc., are his responsibility. This has worked better than having three bosses trying to handle the help.

Without going into every as-

pect, what this specializing does is enable each one to use his best skills and aptitudes and to clearly outline responsibilities within the business. It saves time and arguments.

As we go down the road, I suggest one of the educational musts which has to be met is this whole field of agricultural financial organization of the business, designation of responsibilities, and labor relations, as well as better control of finances.

Size brings its rewards, but does inevitably lead to a change in the needs. It becomes a whole new ballgame when two, three, or four management people are involved.

RUBBER FENCING

Recently we commented about the possibility of molded rubber stall dividers. John O'Brien of Litchfield, Connecticut has been good enough to tell us of his experience with rubber pylon fencing for his Thoroughbreds.

It has stretch so is pulled snug and anchored leaving a tight fence. It is about 7/16" thick, 2-4" wide, and is conveyor belt salvage.

It doesn't solve the problem of stall dividers, but is a step toward it. In the meantime, it does indicate that the rubber companies may be interested in some new uses for their products or by-products. We'll keep you informed if we get any hay down on this one.

AT LAST!

Everyone takes it for granted that the person who provides a golf course, a bridle path, or a bowling alley has the right to charge for the use of the facility. People who seek recreation of whatever kind expect to pay... except for the right to hunt on private property. In Texas, the laws provide that the landowner owns the game and subject to regulations about seasons he can and does sell the right to hunt.

In New York, our laws were copied after the English laws which held that the state owned the game. Actually, the "state" was the duke or lord or whoever had been granted land by the crown. All others were forbidden to kill the game. Our laws held that the state owned the game and regulated its harvest by seasons and bag limits.

This worked fine as long as most or many people were farmers. It has reached a ridiculous state of affairs when 2 percent of the people in the state are farmers and much of the other 98 percent wants to hunt on their land.

We've now reached and passed the point when farmers should be selling the right to hunt on their farms. This is no different than any other recreational activity. For years people have charged duck hunters a fee to use a blind.

This year in our area a few farmers in favorable locations have sold the right to hunt geese in cornfields after the crop was picked. The sites were managed... only so many hunters in before daylight and out by noon, and hunting only three days a week so the geese would not be driven out. At \$20 a day, favorable spots were in big demand. To me this makes a lot of sense.

The hunters have a much greater chance for success on these managed fields. The geese at least have some safe time. The farmer gets paid for the recreation he can provide and everyone seems happy.

It's only fair to point out that anyone selling such privileges has some extra responsibilities. He must post the land, and control the number of hunters. He must provide access lanes and parking and for his own protection must carry a real bunch of public liability insurance. He will be the first to ask and need a realistic trespass law so that outsiders will think twice before they invade his private posted lands.

Doc Mettler Comments on:

SWAMP FEVER



LET'S just think ahead until the first horse show, trail ride or local horse race. It is a nice warm spring day with not even the hint of a late afternoon shower. Everything seems perfect; you stand by your horse admiring your grooming job and just then a big, green-headed fly lights on that smooth silken neck. Slap! You've killed the fly, gotten blood on your hand and smeared it on that immaculate hair coat. No harm done, a little blood never hurt anything. Or did it? Where did that blood come from... was it from your horse or

from that third horse over that looks a little tired and thin? Did that fly bite your horse just as you killed him, and mix some of the other horse's blood with blood from your horse? If so, did the blood contain virus that could mean your horse will be a hopeless invalid in a matter of weeks?

Chances are that the answer is "no" to all the questions, but this is only springtime. If you continue to go to places where there are other horses, sooner or later the answer will be "yes"

(Continued on next page)

American Agriculturist, January, 1971

to all these questions!

Right now, when the snow is up to your horse's belly, and the flies and mosquitoes are dead, there is time to do something to make the chances of your horse catching Equine Infectious Anemia (swamp fever) almost zero. You alone cannot do much, but you alone can talk to your neighbors, fellow horse club members and everyone interested in horses. Be persistent until everyone is aware that a practical test is now available that can screen out horses that are carriers of E.I.A.

To go back a step, a couple of years ago I wrote in the AMERICAN AGRICULTURIST of E.I.A. I said then that most people felt that until a practical test was found, the disease could not be eliminated. Cornell research veterinarians, fortunately, have developed such a test. It is possible now to have your veterinarian draw blood from your horse and in a few days have a report as to whether or not he has the disease.

Explained

In that article, I tried to explain the disease. Despite the seriousness of E.I.A., little has been written on it in the various magazines, since little could be said about it. It is not a new disease; under the name swamp fever it has been described in veterinary texts for years.

Once a horse contracts the disease he never gets over it, can die, can remain a useless invalid, or can appear quite healthy, showing only a few symptoms when under severe stress, but carrying the virus in his blood to be spread to any other horse that his blood enters. Flies, mosquitoes, halters with sharp rivets, surgical instruments, hypodermic needles and contaminated injectable medicine can carry the virus from horse to horse. Also, an infected stallion can spread it through his semen to a mare and the mare to her foal in the uterus or through her milk.

Does Poorly

The typical horse having infectious anemia does not act sick while loafing at pasture, but will respond to work by losing weight, and seeming to be weak. If his temperature is checked, it will be found to go above normal from time to time, but usually only after work or stress. While not always so, most horses with E.I.A. will be anemic . . . showing pale gums and lips at the same time they are showing other symptoms.

Some, of course, will gradually get worse and die. Infected mares will often abort, or have live (but weak) foals. Some foals from infected mares will show no symptoms and grow to healthy maturity. To the best of my knowledge, however, they are carriers of the disease.

No Treatment

There is no immunization against the disease, and no treatment . . . including blood trans-

fusions from healthy horses . . . is of any permanent value.

Do not confuse Equine Infectious Anemia with equine encephalomyelitis (sleeping sickness), infectious equine pneumo-abortion (virus abortion), piroplasmosis, viral arteritis or equine influenza. Sleeping sickness is the most often confused with E.I.A., since both are spread by insects. You can vaccinate against sleeping sickness . . . and this disease either kills immediately, or the horse makes a recovery. With E.I.A., no proven recovered cases are known.

In the past two years, research veterinarians have learned much about E.I.A. The most important thing now is that the disease can

be detected in individual animals with a practical test, and if all horses in an area are tested and the reactors eliminated the remaining horses should be safe.

Testing and slaughter of reactors is a harsh program, but we are dealing with a harsh disease! Whether it involves a Standardbred breeder put out of business, or a young girl losing her pet pony, the effect of the disease is far worse than the effect of a few animals being put down because they reacted to the disease. These few animals we will lose now would probably never be completely healthy if we kept them. By losing them now, we can put an end to the losing.

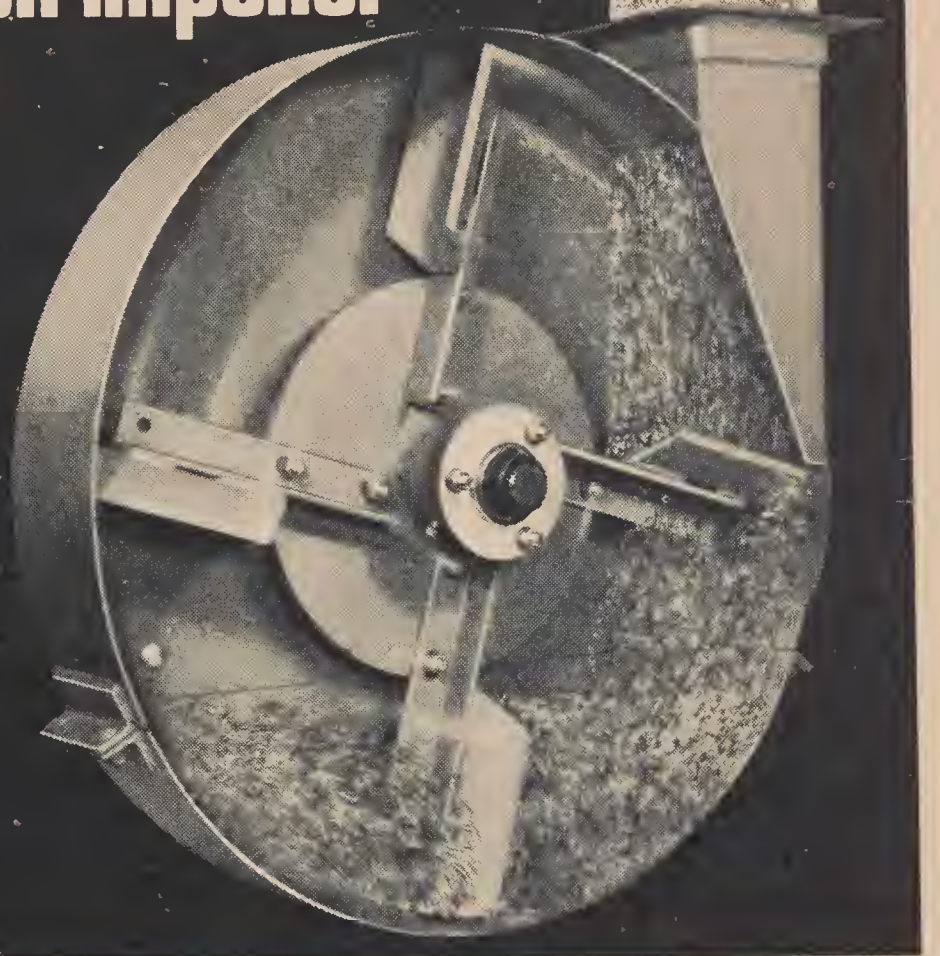
If we don't test now, we will

only prolong the pain of the disease. Last fall, people with courage canceled horse shows because of the fear of spreading the disease. This summer, I would expect we will see regulations at horse shows, tracks and stud farms requiring all animals to be proven free of Equine Infectious Anemia before being admitted.

A little girl told me one time that when she was given a choice at a horse show of flipping a coin for first in a knock down or out, or jumping to win or lose, she would always choose to do the brave thing. We now still have a choice with our fight against E.I.A. Let's do the brave thing and test now!

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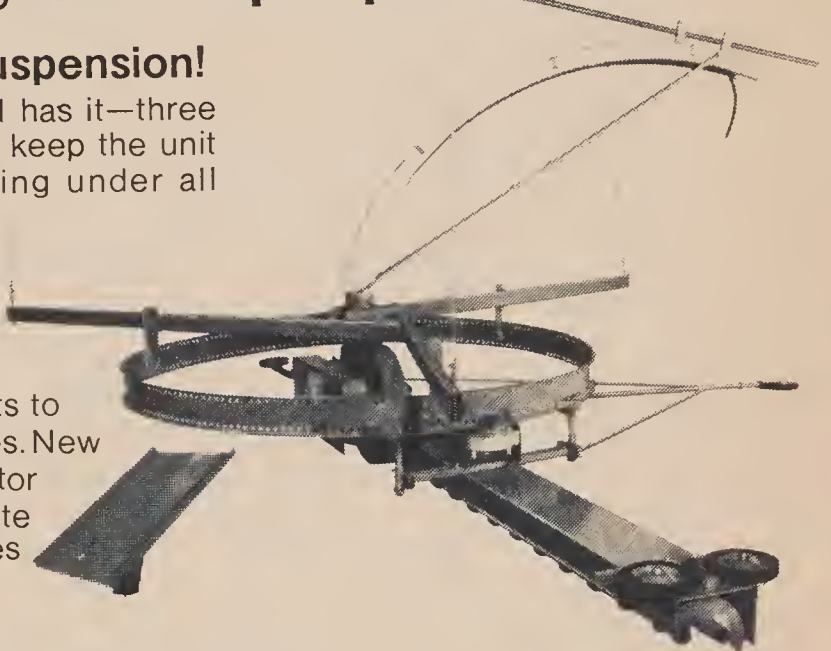


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LOOKING AHEAD

by Amos Kirby
New Jersey Editor

IT IS 1971 and farmers everywhere are now starting to ask, "What crops should I produce in the coming year?"

From what can be observed, the growers with the lowest percentage of farm costs spent on labor will be the best able to meet 1971 labor prices. The growers with low labor costs and using mechanized equipment appear to be in a much better position than vegetable growers with high labor costs.

One may take a look at Delaware as an example of a shift to low labor-cost crops. While Delaware farmers still grow a substantial amount of fruits and vegetables, they have largely shifted to corn and soybeans. It is admitted that their gross returns per acre may be down, but at the same time, their labor costs are relatively light.

Supply Tight

There is no indication of any increase in the 1971 labor supply of experienced and qualified workers. Wages will most likely be higher, and there are signs that unionization of workers may be a problem. There is a possibility that New Jersey farmers may be required to pay into the unemployment compensation fund.

Word from Washington is that the farm share of the consumer dollar may drop two cents to about 37-39 cents in the coming year. At the same time, food costs to the consumer will advance a few points.

This column makes no attempt to tell growers what to do or plant in 1971, but if industrial wages go up 12 to 15 percent . . . and farm prices remain unchanged or go lower . . . there is need to take a new look at 1971 operations.

PALLET BOXES

Based on 1970 operations, the pallet box has largely replaced other types of packages on the majority of New Jersey farms.

Pallet boxes for peaches placed in cold storage for even short periods have been an economical move. Apples stored in pallet boxes may be stacked twice as high as fruit in other types of packages.

Growers hauling tomatoes, cucumbers, carrots and other crops to processors have also found that these containers reduce costs. Processors prefer pallets. In Delaware, a processor loads pumpkins in pallets with a harvester moving across the field at the same rate of speed.

A pallet box, with average care, is known to be in good, serviceable condition up to five years, and it costs from \$7 to \$8.

A pallet box replaces up to 20 half-bushel or five-eighths baskets. With stave baskets costing 20-25 cents, and good for less than a year in most instances, the pallet becomes the economical type of package for hauling from the field or the orchard, for storing, faster unloading, and moving crops to the processing plant.

SEED CORN PROSPECTS

The University of Delaware has come up with some important facts on corn varieties for 1971.

The American Seed Association and the USDA have reported that there will be close to 15 million bushels of seed corn available for U. S. producers in 1971. Only 22 percent will be "N" seed; about 40 percent will be "T" type, and the remainder will be "B" type.

Seed corn designated by an "N" carries normal cytoplasm. This is corn that has been detasseled and is less susceptible to serious infection by the Southern corn leaf blight.

Corn tagged "T" will be from non-detasseled Texas male sterile lines. Last year, 70 to 80 percent of all corn produced was from these lines, and they are more susceptible to the fungus producing Southern leaf blight.

There will be blends on the market identified with a "B" which contain a mixture of blight-resistant "N" seed and blight-susceptible "T." This type of seed corn will be the most popular because of supply and price.

An unknown in the corn blight situation is whether it will be a minor problem in 1971 . . . or whether it is here to stay.

FARMER PROCESSING

Should New Jersey farmers give consideration to marketing their fruits and vegetables through grower-owned facilities?

This question was discussed by Morton Adams, general manager of Pro-Fac Cooperative, Inc., at the last N. J. Marketing Institute.

He gave four replies . . . two were "yes" and two were "no."

1. Yes, if they can get a reasonable return on their invested capital by receiving the average price paid in the area.

2. Yes, if they need an additional market under an acceptable price situation and can buy a previously-developed market for the product.

3. No, if they cannot afford to provide at least 40 percent of the needed equity.

4. No, if they aren't ready to turn over the operation of the facility and the marketing to proven professional management.

American Agriculturist, January, 1971

Food For The Spirit



by Robert L. Clingan

A SERVANT PEOPLE

Many images come to mind when we use the word "church." Sometimes we think of a building; at other times we think of a service of public worship; frequently we think of the denominational label our particular church affiliations carry; or an ecclesiastical machine.

Yet, if we turn to the pages of the New Testament and survey the images of the church, we find that it always refers to people . . . the people of God.

This can be combined in our thinking with another word . . . servant. The church in the New Testament is primarily a servant people, in line with the people God called into existence to proclaim his word . . . his judgment and mercy.

The New Testament account of the life of our Lord pictures Him alternating between the role of Lord and servant. He who was Lord took upon himself the role of a servant, and finally poured out his life for all.

At the last supper he had with his disciples, he turned from their arguing over seats of prestige, stripped to the waist, took a basin of water, and insisted on washing their dusty, sandal-clad

feet. Everyone wore sandals, and the semi-desert roads of Palestine were unpaved. And then he said, "He that would be greatest among you, let him be servant of all."

In his book, "Images of the Church in the New Testament," Dr. Paul S. Minear carries the challenge into the days beyond his death and says, "Those for whom Christ had become a slave were bound by his death into slavery for all those for whom he had died."

At this point it is well to ponder over how . . . as the scholars tell us . . . the English translations of the Bible have reduced and diluted the strong language in which it was originally writ-

ten. For example, all the English words that read minister and ministry originally meant slave, servant, and servitude. Somehow the translators and our easy interpretation have reduced the strong meat and drink of the Gospel into pabulum and uncarbonated fruit juice!

The Christian Church is a group of persons who have become a people with mission. That mission is to proclaim the judgment and mercy of God by word and deed. The writer of Peter 2:9 put it this way, "But you are a chosen race, a royal priesthood, a holy nation, God's own people, that you may declare the wonderful deeds of Him who called you out of darkness

into His marvelous light."

So, when it is most authentic to its calling and purpose, the Church is not a self-seeking, self-serving, self-righteous club. Rather it is a body of folks who have discovered a service they can render to the world because of what they are, the principles to which they are loyal, and the Lord they have known.

Daniel Jenkins, British preacher, in his book, "The Strangeness of the Church," says that the Christian Church is unique because it exists more for the people outside of its life than for its own membership and constituency.

Is this true of your church and mine?

Book Review

SHEEP AND WOOL SCIENCE

by Dr. M. E. Ensminger

This is the fourth edition of this book, and unquestionably the most complete and comprehensive. The future of the sheep and wool industry in the United States depends largely upon the willingness and know-how of the producers to meet consumer preference, provide larger and year-round supplies of uniform quality, and apply more science and technology.

Any stockman or farmer will find in this book values far beyond its price. It is an operating manual and handbook which he will use constantly for reference. Many new break-throughs are on the horizon . . . hormones are being used to control estrus, induce multiple births, produce two lamb crops a year, making for greater efficiency. And the emphasis is on lamb rather than wool. The new edition of "Sheep and Wool Science" will be of help to all sheepmen. — Published by Interstate Printers & Publishers, Inc., Danville, Ohio. (May be purchased through AMERICAN AGRICULTURIST. Price is \$14.35).

American Agriculturist, January, 1971



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Bob enjoys showing his horses . . . this 1850 pound mare was first prize 3-year-old at the New York State Fair. Barn was built especially for horses.



RAISES DRAFT HORSES

It's no news that the horse has made an amazing comeback in numbers all over the country. But these have been riding horses . . . not for draft purposes.

Now, however, there is also a beginning resurgence of the heavier breeds. Robert McNee, of Delancey (Delaware County), New York is one of a growing number of farmers raising "the big ones" . . . registered Belgians in his case.

Bob has a special horse barn measuring 40×62 feet that the McNees built themselves, with the help of a neighbor, Ken Sprague. The barn has 16 tie stalls and two box stalls. Stall floors are made of hemlock planks; partitions between horses are built of 3×10-inch oak.

The McNees have used draft horses for many years at their Bide-A-Wee farm . . . spreading manure in winter, applying fertilizer in the spring, and haying in summer. There are tractors here, too, but several items of field equipment are horse-drawn.

The McNees show their horses at fairs, and find that some breeders want draft horses to cross with a Thoroughbred to get a hunting horse with lots of stamina. Another event for horses at many fairs is the horse-pulling contest, but Bob has no intention of entering his horses in this competition.

The McNees have a herd of 60 Jerseys (38 milkers, with a herd average of 11,425 milk and 500 fat). Bob says, "Dairying is our business, and horses our weakness." To an observer, however, it looks as though he does well at both enterprises! — G.L.C.

HIRES GI'S

James Church operates a 40-cow dairy farm a few miles east of Watertown, New York. He has three daughters . . . 16, 14, and 8 years of age . . . that help a great deal with farm work, and he hires no full-time help.

During the growing season, though, he has found that soldiers from nearby Camp Drum have been good employees. He check-

ed with the CO of the Military Police outfit that is on duty there from May to October, and received permission to post a "Help Wanted" notice on the headquarters bulletin board.

Nine men from the detachment of fifty responded, and Jim has hired all nine at one time or another to do farm work. The jobs involved have run the gamut from plowing to picking stones . . . but Jim does all his own milking. There are three tractors on the place, and Jim can keep 'em all rolling at rush times with his additional labor force.

Here's another example of the ingenuity shown by farmers in obtaining help at critical periods. With timing of getting things done so important in modern farming, the hiring of capable people on a part-time basis can pay off very handsomely indeed. — G.L.C.

BEEF CATTLEMAN

Ever see an entire beef carcass roasting on a turning spit? Not many people have . . . but quite a few share the privilege in the Delhi, New York area.

Burton Clark has devised equipment and techniques to make the job possible . . . in spite of being told by several experts that "it couldn't be done." If you remember that a typical steer will dress out at around 600 pounds in weight, then the engineering challenge becomes obvious.

Beef cattle graze in a fertile valley amidst the mountains . . . the scene might be right from the Old West. The Charolais cattle are a relatively new breed in America, though . . . and the location is strictly eastern, at the Vintage Valley Farm near Delhi, New York.



Burton says, "The first necessity is to start with an animal that is well-fattened, so it will baste in its own fat while cooking." He wraps the entire carcass in aluminum foil, then with chicken wire to hold the foil in place, and finally puts it all inside a cage of expanded metal.

A fire of seasoned hard maple is started inside a huge metal outdoor oven made of metal sheets. After a big bed of coals has formed, the cooking begins . . . but wood is added periodically during the cooking period of nine hours. The carcass turns one revolution each 2½ minutes.

In 1970, Burt and his merry men barbecued four beef animals . . . at one event 1000 people were fed! Plans are already afoot for more barbecues in 1971.

The Clarks have several enterprises . . . including a motel and an excavation business, as well as growing purebred Charolais beef cattle at their Vintage Valley Farm just south of Delhi. Their plan is to sell premium-priced heifers to other raisers of purebred Charolais . . . as well as selling bulls to commercial cattlemen in the West. — G.L.C.

SHOOT DOWN WEEDS

"Singing in the Rain" may have been a popular song in the 1950's, but you'd never get a potato grower to vote for it when he's trying to get fields planted early in the spring! Cool, wet weather has put some northeastern growers far behind work schedules for the past several years.

The job of getting ground ready, planting potatoes, and applying herbicides becomes rushed when the weather turns sour. Frequently, these steps are hurried, and sometimes the weed-control application has been bypassed.

A number of farmers in the Northeast, searching for a way out of the spring rush period, have turned to custom applicators who have increased their use of airplanes for applying chemicals . . . including herbicides early in the growing season, as well as fungicide and insecticides later on. Aerial spraying can be done even when the ground will not support a tractor and ground spray rig.



Joe Albano examines potato vines.

Growers such as Lucien Martens of Port Byron, New York, like aerial applications because they are fast and get the job done on time. He's currently hiring aerial custom applicator Don Hatch to apply the insecticides, fungicides, and herbicides on his 260-acre crop farm, specializing in cabbage and potatoes. "Lorox" linuron weed killer is the herbicide he finds that fits well into an aerial application program for potatoes.

Timing

Lucien makes a point of not getting this chemical on too soon. His aim is to make the application just before the potatoes poke through the ground. Careful timing of the spray extends the weed-control period.

Located in Red Creek, New York, is Joe Albano, another potato grower. While Joe has not switched to aerial application for his 265 acres of spuds, he is a strong supporter of chemicals for weed control.

"Usually, we are able to apply our crop-protection chemicals in plenty of time during the spring period. However, if we had a bad spring and were rushed, I'd probably go to aerial applications," he comments.

Albano likes to apply the herbicide just before the potatoes break through the ground. He has been using "Lorox" at four pounds per acre on muck soils, and two pounds per acre on mineral soils. A Century sprayer which applies 40 gallons of water per acre under 40 psi pressure allows him to get good coverage.

— Laird Logue

MECHANIZED SILAGE

Ralph Hutton of Treadwell, (Delaware County), New York, has been using for some time a mechanized silage-feeding installation in his tie-stall barn. It delivers a mixture of haylage and corn silage four times a day to the 65-cow herd . . . from an 18×50 and a 20×50 silo.

Active in the operation of this farm . . . in addition to Ralph . . . are his wife, Liz, and son Ralph III.

The Huttons tried feeding all silage, but butterfat test dropped from 4 percent to 3.4 . . . so they went back to feeding about one pound of dry hay per cow per day. All hay fed is purchased. DHIC herd average is 703 pounds of butterfat, and 17,800 pounds of milk. — G.L.C.

What's NEW in the FIELD



by Bill Pardee*

SEED catalogs are in the mail and seed salesmen are on the road, both sure signs that spring is not far off. So we'll forget the winter winds outside and take a look at top crop varieties for spring plantings.



Bill Pardee

Here we'll discuss the varieties that have looked best in experiment station trials, seed company tests and in farmers' fields. We will try to pinpoint the best varieties

as we see them, to help you pick those that will bring you profit on your farm.

We don't pretend to have the last word on varieties adapted specifically to your farm. For this you'll want to contact your local extension agents and seed dealers. But these over-all suggestions can serve to get you started.

Queen Alfalfa

Alfalfa, the queen of forages, has a list of varieties that expands every year. Plant breeders at Cornell and Penn State have strong programs and cooperate closely.

Two new Cornell varieties, Iroquois and Saranac have been particularly outstanding. These have topped test after test throughout the Northeast and far into the Midwest. Both are long-lived varieties that resist bacterial wilt, a disease that kills out susceptible varieties in their second and third harvest years.

Both are high yielders, with Saranac ahead by a touch on well-drained soils. Iroquois, on the other hand, surpasses Saranac on moderately-well-drained soils and for long-term stands. Both can produce high first-year yields in seedlings made without

*Department of Plant Breeding and Agronomy, New York State College of Agriculture at Cornell University, Ithaca, New York.



"When I said I estimated 150 bushels last spring, I wasn't talking about per acre."

American Agriculturist, January, 1971

oats and serve well for haylage, silage, or hay. And both outyield older varieties like Narragansett, Vernal, or Cayuga, whenever they stand side by side.

In southern Pennsylvania and Maryland, Saranac and Iroquois sometimes suffer from anthrac-

nose, a disease that damages stems of susceptible varieties. Most times this disease looks worse than it is, but if you farm in these regions and have suffered anthracnose damage in the past, you may wish to choose Vernal or other varieties with lower yield potential, but greater anthracnose tolerance. Anthracnose is rarely or never a problem further north.

Seed supplies of both Saranac and Iroquois seem adequate to meet spring demand.

Yea, Team

Still further south, Team may be a good choice for farmers in Maryland, Delaware, Virginia, and southern Pennsylvania. It has some weevil tolerance and

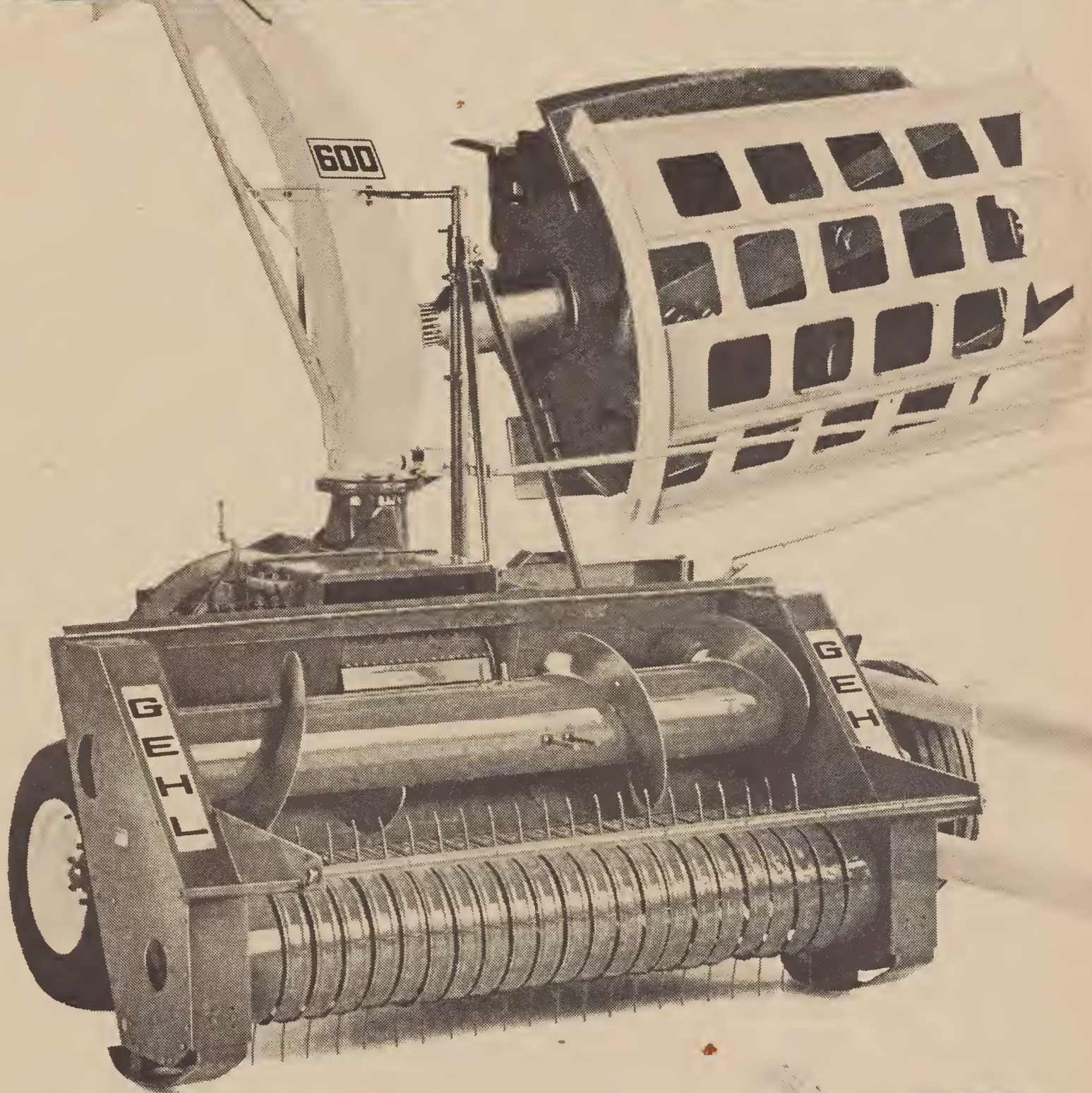
resists anthracnose, but Team is susceptible to bacterial wilt, limiting it to short-term stands. Seed of Team will be scarce this spring.

Several commercial seed companies have their own varieties in the field. Several that look good include WL303, WL305, Haymor, Promor, Dominor, Progress, and 525. Test information is beginning to come in on newer "commercial" varieties. Some don't seem adapted to the Northeast, but others may be. We'll be passing this information on to you as it accumulates.

Orbit heads the field of varieties for New York and New England. It continues to be the

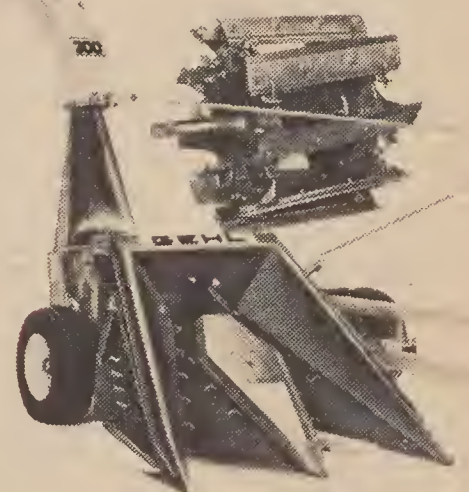
(Continued on page 15)

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GARDEN TALK

by Doc and Katy Abraham

Alligator Pears

Most people use everything but the skin of an avocado (alligator pear). Even the seed (called a "pit") planted indoors makes a fine foliage plant. Start the seed in a glass of water or in soil.

Here's the water method. Thrust toothpicks in the middle of the seed and suspend it in a glass of water. Roots grow out and down from the base. You can tell the top from the bottom of seed easily. The base has a dimple in it, and the top is tapered.

Do not put the entire pit in a glass of water, as it causes a scum to form. Sometimes the halves have started to split, but they shouldn't be entirely separated. There's a vital thread of life between them and if broken, the seed's germinating power may be hurt.

For us, the best method seems to be starting seed in a pot of soil. Set seed in so the top part is above the soil. The upper half of seed should be exposed. By the way, if leaves of your avocado turn brown, it's a good sign your plant is over-watered or poorly drained.

If you buy an avocado in the store, look for those which are heavy for their size. Select ones fairly firm or just beginning to soften. Avoid avocados which have dark, soft, sunken spots on the surface, or those appearing badly bruised because the flesh is sure to be affected.

If the avocado is not ripe, let it mature at room temperature until it reaches the right degree of ripeness. Some housewives hasten the ripening process by putting avocados in a brown paper bag or wrapping them in plastic or foil. Immediately brush the peeled avocado with lime juice to prevent the fruit from darkening.

Earthworms

Even though the ground is covered with snow, it's still a good time to talk about earthworms beneath the snow cover. Aristotle called them the "intestines of the soil," alluding to their ability to digest soil and condition it to a point where it is better than before.

Studies show that an average earthworm will produce its weight in castings every 24 hours. Fussy home owners don't like to see these piles of castings in their lawns, but it's a good sign. Earthworms burrow into the ground as far as 8 feet, aerating the soil and allowing rain to permeate it.

Earthworms penetrate hardpans, and each year their dead bodies add humus and nitrogen amounting to more than a half ton per acre in soils containing

high amounts of organic matter. Charles Darwin found that the amount of soil earthworms pass through their bodies each year can be as much as 15 tons of dry earth per acre.

Home gardeners can encourage earthworms to multiply by adding compost to the soil. Make your own compost, using coffee grounds, tea leaves, potato peelings, table scraps, leaves, weeds, etc.

Garden Clinic

A reader writes, "Our geraniums are about 3 feet tall and quite unsightly. Would it be possible to cut them back now and still have them bloom for Memorial Day?"

Answer — Yes, you can still cut them back quite heavily and have the parent plants blossom by early June. First, take cuttings from the tips. These can be 3 or 4 inches long; root them in plain tap water, vermiculite, clean sand or perlite.

After the tips have been cut off, you can cut the rest of the plant back to within 4 inches of the pot and let all new growth come along. Even the rooted cuttings will mature and flower for you by Memorial Day. Give them ample water and a sunny window. If these get sprawly, pinch out the tips as florists do. This makes them nice and bushy.

Water Witching

Water witching, water dowsing, or water divining is a method used by some to locate water underground. When home gardeners ask me what I think of it, I treat it like a religious subject and do not get involved. Here's a letter I received from a reader:

"My grandfather knew how to locate water, and he did it for years (he lived to be 88). People were always amazed to see him take a forked twig in both hands and walk to where he thought water might be. If water was near, even with the strength of both hands, he could not keep the twig from turning to the ground. On occasion, when water lines could not be located in the village, he would help with his water witching twig. Also, using this method, he located water for persons wanting to build homes.

"I recall when a neighbor lost his car keys, he called on my grandfather for help. He put a coin of the same material as the key into the twig, and to everyone's surprise, the twig quickly pulled down toward the key, laying on the ground where it was lost."

Note: I'd like to know how AA readers feel about water witching. Please write and tell us your experiences.

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(Continued from page 13)

top yielder in New York trials. Its shorter straw lowers its center of gravity and helps it stand against lodging. Orbit matures 3-5 days ahead of older northeastern varieties, permitting earlier harvest. Because its kernels are large, a bushel of Orbit contains fewer seeds, so be sure to boost the seeding rate by 1/2 to 1 bushel per acre.

Older varieties still doing well include **Russell** and **Garry**, both taller than Orbit and 3-5 percent lower in yield. Their height helps if you are seeking straw, but adds to your risk of lodging.

For Pennsylvania, its **Pennfield**, medium season with good standability, and Orbit, early and short-strawed. Others looking good are **Clintford** and **Jaycee**, both early varieties with good standability. Garry and Russell, taller and later maturing old-timers, still do well, though their standability won't equal that of the newcomers just mentioned.

Legumes and Grasses

Birdsfoot trefoil variety choices haven't changed in recent years. Sow **Viking** or **Mansfield** for hay or rotation pasture, **Empire** for permanent pasture or hay on hard-to-plow slopes or soils. Both do well on soils with somewhat poor drainage.

Viking trefoil and Iroquois alfalfa make a popular mix, along with **Climax** timothy. Many farmers find this mixture doing well on soils with somewhat poor or spotty drainage. Alfalfa persists in the drier parts of the field, trefoil in the less well drained spots, and timothy supplies a grass that supplements the legumes and fills in areas where both kill out.

Climax timothy ranks first choice in that species for most purposes. There'll be only a smidgeon of **Essex** timothy seed for those who have come to like this late maturing, high quality forage variety.

In brome grass, there's **Saratoga**, still first choice in the Northeast, with **Lincoln** or **Southern Common** trailing behind in performance.

Late-maturing orchardgrasses have higher feed quality than common orchardgrass on any given harvest date. **Pennlate**, two weeks later than common, ranks highest. **Pennmead**, a week earlier than **Pennlate**, outyields **Pennlate**, yet holds feeding quality better than common. Both are in short supply this spring.

Corn Outlook

The corn hybrid picture has been stirred up considerably by the effects of southern corn leaf blight. We're already hearing stories about farmers who have paid fancy prices for "resistant" varieties that are not adapted in their area. These farmers can

easily suffer more loss by shifting to unadapted hybrids than they may from blight.

We can't begin to cover all the corn hybrids that are available here, even if we had all the information we'd need to do so, which we don't. Your best bet is to check carefully with your local Extension Service and seed dealers for those hybrids best adapted to your farm.

Make your first choice those hybrids that have done well for you, for your neighbors, and in college and Extension trials in your area. Then, if you can find stock of these varieties, fine. If you can't, plant adapted hybrids rather than switch to "unknown" blight-resisters. If you plan to harvest grain, you may want a bit more blight insurance and may want blends or hybrids with some blight tolerance, but even so, be darn sure the hybrid can do well on your farm!

On The Tag

Seed tag labeling on hybrid corn this spring will give you keys to what you are buying. You'll find hybrids designated as "T" (for hybrids produced through the Texas male sterile method), "N" (for hybrids produced through the normal method of detasseling), and "B" (for blends of "N" and "T").

This tells you the genetic background of the hybrids. Last year, in areas hurt by blight, the "T"-type hybrids were hardest hit, blends less hard and normals frequently escaped with little damage. You will find "N" and "B" seed generally higher-priced. It's worth the difference, if you had blight on your farm or in your area. It may not be, if you haven't.

Big point again. Don't make big switches to hybrids that you've had no experience with, just to get "N" or "B" seeds. Above all, be sure the hybrid you choose is well adapted to your farm.

Soybeans

Soybeans aren't a major crop over most of the Northeast, but interest is picking up in some areas. Some soybean newcomers look good, particularly **Hark** and **Traverse** for central and western New York, joining **Chippewa 64** as top varieties for that area. **Harosoy**, **Amsoy**, **Adelphia**, and **Wayne** do well in southern Pennsylvania, Maryland, Delaware and New Jersey.

Buy Certified

You've heard it before, but the longer I see and work with seeds, the more I am impressed with the value of certified seed. The blue tag of certification assures you of the variety you are getting. It also indicates that the seed meets high quality standards.

Saving your own oat seed, or purchasing cheap seed from a neighbor may save a few dollars at planting time, but it can cost plenty at harvest! Your best bet is thoroughly-tested seed carrying the blue tag of certification.

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NEW PESTICIDE REGULATIONS

by Gordon Conklin

MOVIES have been rated "X" and "R" . . . and even a few "G" . . . for a number of years. Beginning on January 1, 1971, many pesticides will be restricted in New York State, and that movie rating system may help to understand the procedure.

The "X" Ten

There are ten entries in what we'll label the "X" rating . . . **no permitted use of these whatsoever except in an emergency affecting the public health:**

1. Bandane (lawn herbicide, primarily to fight crabgrass).

2. BHC (benzene hexachloride).

3. DDD (a close relative of DDT, and sometimes also called TDE).

4. DDT (the product that has probably created the most fuss of all).

5. Endrin (once used widely for control of the pine mouse in fruit orchards).

6. Mercury compounds (fruit growers have used mercuries to "burn out" scab infections . . . and these materials have also been quite widely used as seed treatments and for the control of turf diseases).

7. Selenites and selenates (selenium compounds).

8. Sodium fluoroacetate (a very toxic rodenticide).

9. Strobane (a relative of toxaphene).

10. Toxaphene (interestingly, this product has some similarity to **terpenes**, substances given off naturally by coniferous trees).

Seven of Ten

The list of ten pesticides includes seven chlorinated hydrocarbons (all but 6,7 and 8). This group of chemicals has been widely condemned because of unusual persistence in the environment . . . and because they are concentrated in the "food

chain" of wildlife. Sodium fluoroacetate, although not a chlorinated hydrocarbon, is on the list partially because of its secondary poisoning effects — i.e., animals feeding on the poisoned animals are also killed.

To continue the analogy with movie ratings, we come next to the "R" rating . . . and we'll assign it to also mean "restricted" in the pesticide field. These restricted pesticides may be distributed, sold, purchased, possessed, and used **only** by "economic users" . . . defined as persons "who regularly use and apply pesticides as a significant part of their gainful employment or livelihood as determined by the commissioner."

The commissioner in this case is the head of the New York State Department of Environmental Conservation. Eligible users make up a fair-sized list, including some folks as farmers and nurserymen . . . but the suburban homeowner is excluded.

Two Lists

There are actually two lists of restricted pesticides . . . the one we'll call "RR" is sharply restricted (even beyond label instructions) . . . and the other less stringently limited, which we'll just call "R."

The "RR" group may be distributed sold, purchased, possessed, or used only upon issuance of a commercial permit to sell them and a purchase permit to use them, and only for the purposes listed by the new regulations. The label on the can may list many uses, but in New York State the use of these chemicals is (as of January 1, 1971) limited only to the ones specified here:

1. Aldrin — allowable for control of termites within structures or beneath the surface of the ground.

2. Arsenic compounds —

a) Inorganic insoluble (50 percent and above as the compound) including calcium arsenate, lead arsenate, magnesium arsenate and paris green, shall be restricted.

b) Inorganic soluble, including arsenic trioxide (above 1.5 percent), sodium arsenite (above 2 percent), and sodium arsenate (above 5 percent) shall be restricted.

c) Or any use of these compounds which exceeds 4 pounds total per acre of active ingredient shall be restricted.

d) Arsenious oxide may be purchased under permit for formulating baits which shall contain not more than 2.4 percent of the compounds for commercial areas or 1.5 percent of the compound for home use to control rodents.

3. Chlordane — allowable for application to soil to control wire worms in potatoes, strawberry root weevil, strawberry root worm, Asiatic garden beetle, Japanese weevil, taxus weevil, bulb-flies on narcissus and daffodils, and other larvae, grubs and weevils in commercial sod and nursery stock. Chlordane may be applied also within structures and below the surface of the ground to control ants and termites.

4. Dicamba (Banvel D) — no restrictions on the substance itself, but mixtures with fertilizers are not permitted.

5. Dieldrin — allowable for application below the surface of the ground or within structures to control termites, and for application to seeds to be dispensed in small packages. In accord with regulations of the USDA, dieldrin may be applied to surface soil for shipment of nursery soil and salable sod.

6. Heptachlor — allowable only for incorporation by New York State Department of Agriculture and Markets into baits for the alfalfa snout beetle, which may not be distributed at a rate to exceed 2 ounces of active material per acre.

7. Lindane (gamma isomer of benzene hexachloride) — may be allowed for use on trees and shrubs to control lepidopterous and coleopterous borers, long-horned and ambrosia beetles, giant hornets, the white pine weevil, pine root collar weevil, pales weevil, balsam twig aphids, white pine aphids, northern pine weevil, and the honey locust pod gall. Overall foliage treatments will not be allowed except for treatment of the honey locust pod gall.

Pastes or ointments containing less than 2.1 percent of lindane and intended for direct application to wounds in shrubs and trees caused by borers, weevils and other insects may be sold over the counter to the general public without permit. Planter-box treatment of bean, curcubit, corn and pea seeds shall be allowed. Anti-flea collars containing not more than 0.75 percent of lindane may also be sold over the counter.

The seven materials on the foregoing list will be available to farmers and other economic users . . . but only after the approval by the Department of Environmental Conservation of an application form that lists exactly what the material is to be used for, the amount of material to be applied, number of applications, etc. Purchases of the material will be listed on the back of the form, and it will be voided when the total amount of chemical authorized has been purchased.

Finally, there is the "R" list . . . restricted, but only minimally so. These materials may also be purchased only by economic users through the use of an official permit. However, the permit allows purchase of any item on the following list and in any quantity . . . and these pesticides can be used for any labeled purpose. Here's the rundown of these pesticides . . . remember that **all concentrations** are involved, unless otherwise stated:

1. Acrolein, Aqualin (acryaldehyde)

2. acrylonitrile

3. aldicarb (Temik)

4. Antu — all concentrations above 29 percent

5. Avitrol

6. Azodrin

7. Bidrin

8. Bomyl

9. carbon disulfide

10. carbofuran (Furadan)

11. carbophenothion (Tri-thion) — all concentrations above 5 percent

12. chlorophicrin

13. cyanides

14. cyclohexamide (Actidione) — all concentrations above 1.3 percent

15. Dasanit

16. demeton (Systox)

17. dioxathion (Delnav)

18. diphacinone — all concentrations above 3 percent

19. Di-Syston — all concentrations above 2 percent

20. DNBP or DNOSBP

21. DNOC

22. DNOCHP

23. Dyfonate

24. endosulfan (Thiodan)

25. EPN

26. ethion — all concentrations above 2.5 percent

27. Famphur

28. fenthion (Baytex)

29. Fumarin — all concentrations above 3 percent

30. Guthion — all concentrations above 3 percent

31. methomyl (Lannate)

32. methyl bromide

33. Methyl parathion

34. Nicotine alkaloid

35. nicotine salts . . . all concentrations above 40 percent

36. paraquat — concentrations above 0.2 percent cation

37. parathion

38. pentachlorophenol — all concentrations above 5 percent

39. phorate (Thimet)

40. Phosdrin

41. phosphamidon

42. phosphorus (white or yellow)

43. Pival — all concentrations above 3 percent

44. PMP, Valone — all con-

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- centrations above 6 percent
45. Schradan (OMPA)
 46. strychnine and its salts
 47. Sulfotepp
 48. Sulfuryl fluoride (Vikane)
 49. TEPP
 50. 2,4,5-T
 51. Vapona (dichlorvos, DDVP) — all concentrations above 1 percent. Resin strips will not require a purchase permit so long as federal registration is maintained
 52. Warfarin — all concentrations above 3 percent
 53. Zectran
 54. zinc phosphide — all concentrations above 2 percent
 55. Zinophos

Where items show that only concentrations above a certain level will be restricted, remember that concentrations **below** that level can be marketed and used without restriction. For instance, a rose dust containing Actidione (number 14 on the list) at .06 percent concentration is not restricted.

Entomology Professor James E. Dewey at Cornell University has played a major role in shaping the new regulations. During a recent interview, he answered some questions:

Will farmers be hurt by the new regulations?

I don't think so. They will have to obtain permits in order to purchase and use the restricted materials, but this should not be a major problem. Furthermore, alternative pesticides are available to replace those ten on your "X" list that are forbidden. For example, DDT for controlling the earworm in sweet corn can be replaced by such materials as Lannate, Gardona, or Sevin.

How does a farmer get a permit?

He first obtains an application form from his county agent, from a pesticide dealer, or from a regional office of the Department of Environmental Conservation. After completing it, he sends it to Albany. Remember that the application forms are different for those "RR" materials, as you call them, than for what you call "R" pesticides.

There is, by the way, no fee charged for either permit.

What if a farmer does custom work for a neighbor?

Well, a person who makes a business of custom spraying obviously will need to register as a custom operator . . . and pay the \$30 fee required. However, there's still a sort of gray area in the regulations as to the farmer who may apply pesticides for only one or two neighbors. Better check this one with Department people closer to the next growing season.

What about the non-farm homeowners, practically none of whom can qualify as "economic users" . . . can they still control the crabgrass and the Japanese beetle?

These folks cannot legally purchase, use, or possess any of the materials listed as restricted or forbidden, and they cannot receive a permit to obtain them.

Many of these people don't realize how much they have used pesticides in the past . . . such brand names as "Raid," "Off," and all the rest. Surveys show, though, that more than three-fourths of non-farm people purchase pesticides at some time during the year.

However, remember that certain concentrations of what you label the "R" list are unrestricted, and these lower concentrations include many commonly-used home and garden pesticides. Also, you'll notice that such materials as malathion, methoxychlor, captan and maneb are not listed anywhere . . . and these are common ingredients of the "shotgun" mixtures usually recommended for pest control by homeowners. Following along with your movie ratings, such materials might be placed in the "G" category . . . available to everyone.

One of the purposes of the new regulations is to keep the really "hot" pesticides . . . like parathion and TEPP, for instance . . . out of the hands of amateurs who could be seriously injured by them. Furthermore, the regulations will keep unusually persistent chemicals out of the hands of both amateur and professional . . . or allow their use only under very restricted conditions.

Would you comment on the possibility that these new regulations will eventually become more restrictive?

I'd predict they will if we don't all work together to make the present law work! In that dismal event, I'm sure agriculture will be faced with far more restrictive regulations.

The leadership of the Department of Environmental Conservation has made, on behalf of agriculture, many modifications of original ideas on the degree of restriction. It's my opinion that reasonable restriction is actually in the long-run best interests of farmers as well as manufacturers of pesticides.

Furthermore, I think that the law affecting pesticides in New York State is flexible enough to adequately cope with problems that will arise in pesticide supervision.

EDITOR'S NOTE

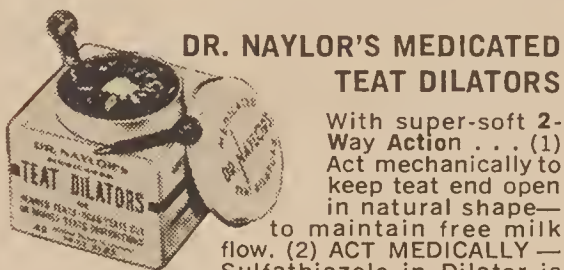
There is a question of what happens to restricted pesticides already in the hands of homeowners and economic users in New York State. Jim Dewey was uncertain when interviewed about what the official position will be toward that dilemma, but my guess is that it's likely these materials will be authorized for use until supplies on the farm and in the home are used up.

Future additions to the pesticide arsenal will be placed in one of the categories mentioned in the article . . . forbidden, heavily restricted, somewhat restricted, or unrestricted.

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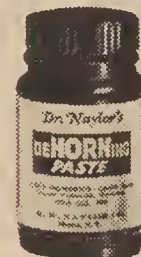
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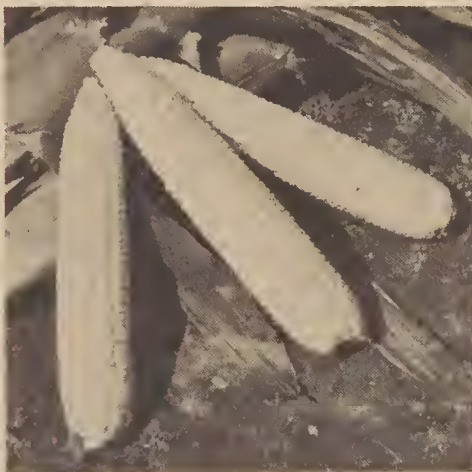
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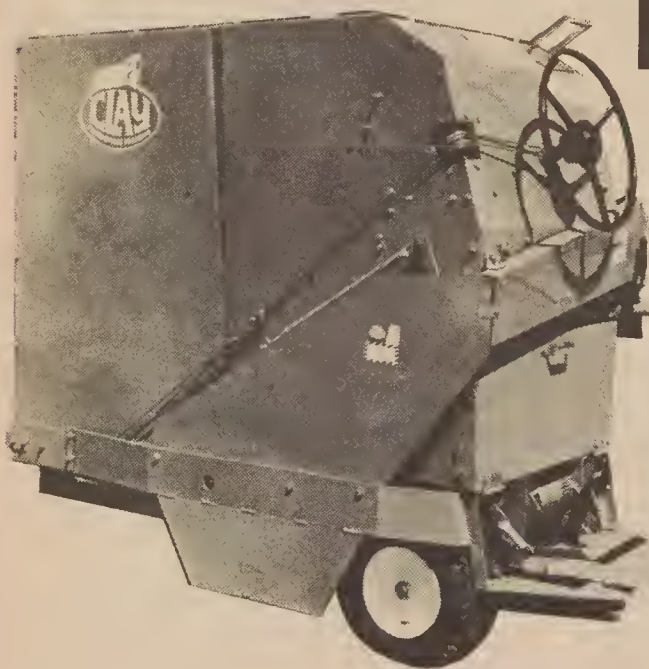


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NATIONAL 4-H WINNERS



Young people representing nine northeastern states participated in the recent 4-H Club Congress in Chicago. Here are recipients of national awards. Two Pennsylvania winners not pictured are Lee Critchlow II of Harrisville, and Harold Moyer of Lebanon.

NEW JERSEY



David Shafer
Titusville, N.J.



Kathleen Gilfillen
Haddon Heights, N.J.



Mary Buchanan
Stockton, N.J.



Thomas Roberts
Toms River, N. J.

NEW YORK



Cathy Steas
Flanders, N.J.



Peter Jerome
Watertown, N. Y.



Margaret Wanek
West Hempstead, N.Y.



Suzanne McKinley
Cato, N. Y.

PENNSYLVANIA



Judith Ziegelhofer
Eden, N. Y.



John Janovsky
Canastota, N. Y.



Leon Bucher
Newville, Pa.



Ned Hower
Northampton, Pa.



Kent J. Strock
Mechanicsburg, Pa.



Glenn Lippy
Littlestown, Pa.



Anita Slothour
York Springs, Pa.



Suzanne Renshaw
Dushore, Pa.

NEW HAMPSHIRE



Maureen Morris
Indiana, Pa.



Edward Biddle
Pleasant Gap, Pa.



Rodney Bascom
Epping, N. H.



Mary Morrill
Penacook, N. H.



Rebecca Kimball
Epping, N. H.



Virginia Stuart
Stratham, N.H.



Dollar Guide



NYS AGRICULTURAL RESOURCES COMMISSION seeks to involve agriculture in planning processes at all levels of government, as well as in land-use planning by agribusiness (public utilities, etc.). For information about the Commission, contact Executive Director William Bensley, Dept. of Agr. & Markets, Bldg. 8, State Campus, Albany, N.Y. 12226. Bill is past president of NYS Farm Bureau.

MINIMUM WAGE for farm workers in New York State goes up to \$1.50 per hour on February 1, 1970. Any farm employer in the State who spent \$1,200 or more for cash wages during the preceding calendar year is subject to the minimum wage law.

ELECTRIC MOTORS that can deliver high horsepower (15 to 50) from the standard single-phase power lines found in most rural areas have been developed by General Electric. The Clydesdale line of capacitor motors fits all moderate starting-torque applications ... forage blowers, crop dryers, irrigation pumps, etc. No phase converter is necessary. For more information, write to: General Electric Company, Small AC Motor and Generator Department, Schenectady, N.Y. 12305.

EGGSHELL QUALITY is markedly improved by poultry diets containing dime-sized oyster shell flakes and powdered limestone. Prof. M. L. Scott at Cornell calls this finding one of the most significant in long efforts to minimize shell breakage.

DRAIN OLD GAS from stored engines now, even if you failed to take the step last fall. The longer you wait, the harder the starts next spring or summer.

DAIRY FARMERS' SEMINAR will be held at the University of Massachusetts on January 20 and 21. Speakers will discuss topics ranging from new milk testing procedures to corn blight control. For details, contact Dr. S. N. Gaunt, Veterinary and Animal Sciences Department, College of Agriculture, University of Massachusetts, Amherst, Mass. 01002.

NEW FARM BILL will have little direct effect on northeastern farm operations. The Secretary of Agriculture has considerable flexibility authorized, and much depends on the political realities that will weigh on him. Provisions in the new law of interest to northeastern farmers are the chance to take hay off conservation set-aside acres, funds for community and individual improvement loans, ground rules for new Class I base plans for milk, and more influence by the marketplace in determining prices paid for formula feed.

LOWER COST BEDDING for free stalls. Try lime quarry screenings if they're locally available. Ken and Ralph Simons of Smyrna, N.Y., are trying this alternative to hard-to-get sawdust. Wes Foote of Nunda, N.Y., is experimenting with four stalls where indoor-outdoor carpeting is glued to the concrete.

CORN FUTURES TRADING is explained in booklet "Introduction to Corn Futures." Send 75 cents to Board of Trade, Special Services Dept., 141 West Jackson Blvd., Chicago, Ill. 60604.

FREIGHT RATES are up in Northeast by 25 percent since 1967 ... latest jump was 9 percent.

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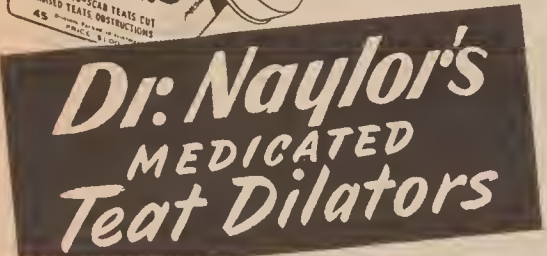
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Again this year, AMERICAN AGRICULTURIST is offering a choice of two vacations in Hawaii. The itineraries are almost identical, so it's just a question of which time you'd rather visit the Islands. Dates for our Springtime in Hawaii tour are April 18 to May 1 and for our Aloha Week Hawaiian Holiday, October 9-23.

For both tours, we will fly directly to Hawaii without a stopover in Portland. Here are just a few of the things we'll see in the "Paradise of the Pacific."

On Hawaii, the "Big Isle," we'll drive along historic Kona Coast, visit the City of Refuge, Captain Cook's Monument, the vast Parker Ranch of 300,000 acres, lovely Akaka Falls, the orchid capital of Hilo, and Hawaii National Park.

Maui is known as the "Valley Isle," and here we'll see Haleakala Crater, the world's largest dormant volcano, "The Needle," a fern covered volcanic freak rising 2,000 feet above the valley floor, and Lahania, Hawaii's first capital and ancient whaling center.

The third island visited is Kauai, the "Garden Isle." Here, an excursion by motor launch will take us up the Wailua River to a lovely fern grotto, and we'll see acres of waving sugar cane, rice paddies, and field upon field of beautiful tropical flowers. A few of the other enthralling sights on this lovely isle are Waimea Canyon, Kalalau Lookout, and the lush, green Hanalei Valley.

The last and best known island is Oahu, and our hotel is on famous Waikiki Beach. Highlights of our stay here are a full circle tour of the island and visits to Sea Life Park, the Mormon Temple, Polynesian Cultural Center, Schofield Barracks, a pineapple cannery, and a cruise through Pearl Harbor to Battleship Row where the sunken USS Utah and the USS Arizona have been left as a permanent memorial.

Every detail of these delightful vacations has been carefully and expertly arranged by our tour agents, the Travel Service Bureau of Needham, Massachusetts. And as with all AMERICAN AGRICULTURIST tours, everything is included when you buy your ticket, so there are no travel

worries of any kind. It's really the perfect way to see Hawaii.

Cruise Cancelled

We are disappointed, and we know you will be too, that our Casual Cruise to Inca Land aboard the Santa Maria will not go out. We learned recently that the Prudential-Grace Line has cancelled all passenger operations for the present.

Other Trips

Last month we promised to tell you briefly about additional vacations we have planned for the spring season, and here are two more.

Mount Hope Cruise — May 23 to June 4. Last year's inland waterway cruise was so popular that we've again chartered the MV Mount Hope for the exclusive use of our AMERICAN AGRICULTURIST group. The cruise is limited to 40 members; so don't delay making your reservations.

From Warren, R.I., we will sail across Long Island Sound, up the Hudson River, and through the Barge and Oswego Canals to Lake Ontario. We pass through the beautiful Thousand Islands and then down the St. Lawrence River to Montreal. We continue down the St. Lawrence to the Richelieu River, picturesque Chambly Canal, Lake Champlain, and finally the Hudson River and Long Island Sound back to Warren. Smooth sailing, scenery all the way, interesting shore excursions and a congenial group make this cruise a real delight.

British Isles & Iceland Holiday, May 24 to June 14. Visit the beautiful British Isles in springtime. You'll see London's famous Kew Gardens, rhododendrons blooming in profusion at Warwick Castle, and the bluebells of Scotland scattered over the highland areas.

As an added attraction this year, we will make an unusual and very interesting visit to Iceland, land of mountains, fjords, volcanoes and hot springs. You'll enjoy the many impressive sights, including Golden Fall, the Great Geyser, and Thingvellir where the oldest parliament in the world was founded in 930.

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American Agriculturist, January, 1971

"Eat a good breakfast to start a good day" has long been a familiar slogan. Studies continue to show that a good breakfast really does make one more alert and able to do more work during the morning, whether it be at home, in the factory or office, or at school. Certain schools serving breakfast to children under the U. S. Dept. of Agriculture's School Breakfast Program report marked improvement in student grades and attitudes, as well as an increase in attendance.

A good breakfast includes servings from at least three of the four food groups in the Daily Food Guide — Milk Group, Meat Group, Vegetable-Fruit Group, Bread-Cereal Group — to supply about one-fourth of the day's need (one-third for children). How do breakfasts served in your home rate?

It's fun to serve unusual breakfasts on week ends, for special family observances and get-togethers with friends. You might like to feature one of the following ideas.

SAUSAGE CORN CAKE ROLL-UPS

- 1 pound fresh or precooked pork sausage links, cooked
- 2 cups prepared pancake mix
- 1 cup yellow cornmeal
- 2 tablespoons sugar
- 3 eggs, slightly beaten
- 2 1/2 cups milk
- 1/4 cup melted shortening or pork sausage drippings

Pan fry or oven cook fresh pork sausage links as desired, or heat precooked sausages as directed on package.

To pan fry, arrange links in a cold skillet with 1/4 cup water. Simmer covered for 5 minutes; don't boil and don't prick. Drain and pan fry slowly, turning occasionally with tongs until sausages are evenly browned and thoroughly cooked, about 20 minutes.

To bake sausages, arrange links in single layer in a shallow baking pan and add water to 1/4-inch depth. Bake uncovered in a hot oven (400°) 15 minutes, drain and discard drippings, return to oven and bake until done, about another 20 minutes. Drain links on paper towels and keep warm until ready to roll with pancakes.

To make pancakes, combine mix, cornmeal and sugar and mix well. Stir in one-half of the combined milk and shortening. Stir just until free of lumps, then blend in remaining milk and shortening.

For each cake, pour 1/4 cup batter onto a moderately hot griddle; turn when top is full of bubbles and under side lightly browned and brown second side. Roll cakes around cooked sausage links and hold in place with toothpicks. Serve with syrup, fried apple slices and generous glasses of orange juice.

To make Fried Apple Slices: Wash, core (do not peel), and cut three large cooking apples (preferably those that hold their shape cooked) into thick slices. Sprinkle lightly with sugar (brown or white). Sauté slices in a little hot butter in skillet until tender. Arrange roll-ups and ap-

American Agriculturist, January, 1971

We're for BETTER BREAKFASTS

by Alberta Shackelton

ple slices on attractive platter and garnish with parsley sprigs.

SCRAMBLED FRENCH TOAST

- 8 slices dry bread with crusts, cut in small cubes
- 3 eggs, well beaten
- 3/4 cup milk
- 1/2 teaspoon salt
- Shortening or bacon drippings
- 8 slices crumbled cooked bacon

Thoroughly combine eggs, milk and salt. Pour over bread cubes and toss lightly. Sauté in

platter or on individual serving dishes. Place a drained poached egg on each and spoon on some of the sauce. Garnish with parsley if desired.

Note: If you use the ham spread, omit butter on the muffins.

To make Mock Hollandaise Sauce, combine 1 cup hot medium cream sauce with 2 slightly beaten egg yolks, 2 tablespoons butter and 2 tablespoons lemon juice.



Photo: American Meat Institute

Here's a rise-and-shine breakfast worth waking up for! Old-fashioned favorites with a new twist — corn cakes rolled around tender, well-browned sausage links and served with maple syrup and fried apple slices.

hot shortening in large skillet, turning occasionally, until well browned. Sprinkle with bacon. Serve with syrup if desired to four.

HAM'EGGS BENEDICT

- 3 English Muffins
- 6 slices grilled, broiled, or boiled ham or
- 2 small cans deviled ham spread
- 1 cup hot Cheese or Mock Hollandaise Sauce
- 6 poached eggs

Split and toast English Muffins and spread lightly with soft butter. Top each toasted muffin half with ham slice and place on

- 1/2 cup sugar combined with
- 1 teaspoon cinnamon
- 3/4 cup candied fruits, cut small
- 1/2 cup raisins
- 1/4 cup coarsely cut pecans
- 1 1/2 cups confectioners' sugar
- 1 teaspoon grated orange rind
- 1 to 2 tablespoons light cream
- 1/4 cup pecan halves
- 1/2 cup candied or maraschino cherries, sliced crosswise

Combine cooled scalded milk, sugar, salt, vanilla, and grated rind and stir in dissolved yeast. Beat in the eggs (to measure half an egg, beat egg slightly and use 2 tablespoons). Add just enough flour for a medium soft dough. Work in soft butter with a spoon.

Knead dough on a lightly floured board until shiny and elastic, about 5 minutes. Add flour as necessary, but not too much. Round up dough and place in a greased bowl. Cover bowl and let dough rise in a draft-free location 40 to 60 minutes, or until double in bulk. Punch down dough and knead lightly in bowl. Divide dough into two equal apertions.

TWISTS

Roll one portion of dough into an oblong about 12x5 inches. Spread dough generously with soft butter and sprinkle with one-half of the combined sugar and cinnamon. Arrange one-half of the candied fruit, raisins and nuts evenly over the top.

Roll up the oblong tightly, starting with the long side; butter outer edge and pinch together. Remove roll carefully to one side of large baking sheet. Slash almost through the roll with floured scissors at 1-inch intervals. Then turn first slice to one side, next slice to other side, and so on down the roll. You will have about 14 separations. Repeat with other portion of dough, placing roll on second side of baking sheet.

Let rise 30 to 45 minutes until double in bulk; bake on center rack in preheated moderate oven (350°) about 25 minutes, or until it tests done and is lightly browned.

Remove from oven and while still warm, drizzle over the twists the confectioners' sugar and orange rind mixed with enough light cream to moisten. Decorate with pecan halves and cherries. To serve, break off or cut away each separate roll.

Note: The above recipe will make a very large coffee cake. Roll dough into oblong about 20x6 or 7 inches and proceed as directed for twists. Place roll on baking pan, stretch into a circle, and pinch cut edges together tightly.

With scissors, cut 16 to 18 slits on a slant, almost to bottom of roll. Turn one section outward, the next one inward, and continue until every section of dough faces in opposite direction. Bake as directed above for about 30 to 45 minutes and decorate as desired.

For a small coffee cake, cut off two-thirds of long roll of dough. Cut remaining third into 1-inch slices and bake in greased muffin tins.

Favorite Repeated

The following "Rich Coffee Cake" recipe is a favorite with family and friends. It can be used for large or small rings, individual buns, or twists. It freezes well. The recipe is repeated by request.

RICH COFFEE CAKE

- 1 package dry yeast dissolved in
- 1/4 cup lukewarm water
- 1/4 cup scalded milk, cooled
- 1/4 cup sugar
- 1/2 teaspoon salt
- 1 teaspoon vanilla
- 1 teaspoon grated orange rind
- 1 1/2 whole eggs
- 2 to 2 1/2 cups all-purpose flour
- 1/4 cup soft butter
- Soft butter for spreading

NEW BROAD BREAST MEATY CORNISH KINGS

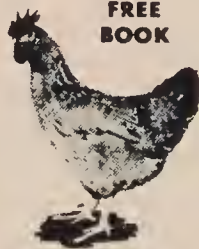
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PASTE**



Little Darling Snapdragon



Peter Pan Pink Zinnia

ALL-AMERICA SELECTIONS FOR 1971

Are you wondering what flowers to plant this year? Then your troubles are over! Six flowers shared in All-America honors for 1971, and two of them, Zinnias "Peter Pan Plum" and "Peter Pan Pink," are Gold Medal winners. It is most unusual to give Gold Medals to two flowers in one year — in fact, the last time it was done was in 1935!

Receiving an All-America award is quite an accomplishment for any flower, when you consider the wide variety of climates and soils at the 29 different test garden locations throughout the United States and Canada. The two new Peter Pan zinnias broke all previous All-America Selections records. Both scored higher than any other entry in the almost 40 years of judging thousands of flowers and vegetables!

When you grow Peter Pan Plum and Peter Pan Pink Zinnias, you'll find why they were honored with Gold Medal awards. They have large double flowers, measuring 3 to 4 inches across, and mature plants grow

no taller than 12 to 14 inches. This makes them ideal for flower borders. They are easy to start from seed and give homeowners a long season of fine bloom.

Peter Pan Plum is a lovely lavender-rose or plum color. Peter Pan Pink is coral-pink, almost a two-tone, with deeper salmon-rose at the center and changing to a lighter salmon-pink in the outer petals. Both seem to "clean themselves," that is, new leaves and flowers grow over and cover the old blossoms.

Two Silver Medal Winners

"Queen of Hearts," a dianthus, and "Southern Belle," an hibiscus, received Silver Medal awards. Queen of Hearts has brilliant scarlet-red single flowers, grouped in clusters, and is the first true F₁ hybrid dianthus. It has great vigor, uniformity, and masses of bloom through summer and fall.

Note: Seeds for Queen of Hearts were being grown in Costa Rica, and as we go to press, word has been received that the entire seed crop has failed. Be-

lieved due to a toxicity problem, the seeds did not mature. This means home gardeners will not be able to try this All-America Selection before 1972.

The new hibiscus, Southern Belle, boasts fantastically large blooms. Individual single flowers measure from 7 to 10 inches or more. Colors include crimson, red, rose, pink, white, and white with a red eye. The plant dies down each winter, but comes up again even in northern areas, and blooms year after year.

Two Bronze Medals Given Also

Snapdragon "Little Darling" merits a Bronze Medal award. It is similar to "Bright Butterflies," a previous AAS winner, but is shorter, growing about 12 inches tall. It has a long season of bloom and an unusually fine mixture of colors. It withstands windy locations quite well and is excellent for both cut flower arrangements and landscape border plantings.

Bronze Medal winner, Silver Puffs Hollyhock, is the first truly dwarf hollyhock. It grows about 2 feet in height, which means you can use it any place in the garden and not just in the background like taller hollyhocks. The fluffy double flowers are a delicate silvery-pink. Silver Puffs may be started indoors from seed and the small plants set outside for early first-year blooms.

One Vegetable Wins Award

Only one new vegetable for 1971 is an All-America Selection, winning a Bronze Medal. Hybrid sweet corn "Early Xtra Sweet" fulfills its claim for double sweetness and for retaining its sweetness much longer than the usual varieties. Once you try it and find out what a really good sweet corn tastes like, you won't plant anything else!

Growing flowers and vegetables which have won All-America Selections honors can make you a more successful gardener. All seed firms have equal opportunity to obtain seeds of the winners from their original growers, so order seeds soon from your favorite garden seed firm and get ready to garden in 1971.

American Agriculturist, January, 1971



Silver Puffs
Hollyhock

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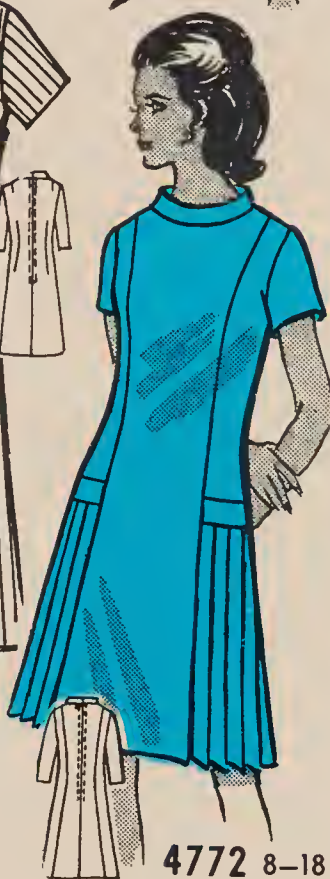
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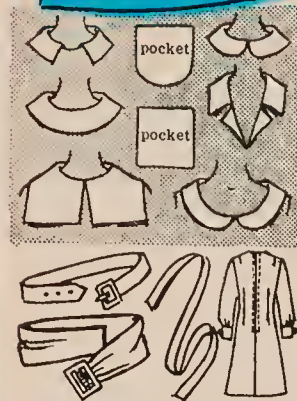
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4772 8-18



4598 8-18



9127
10 1/2-18 1/2

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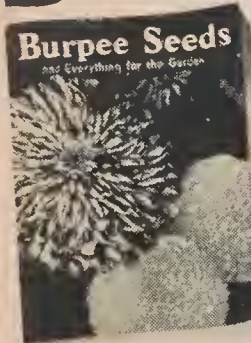
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BE A GOOD FRIEND

By Emily R. Dow
 North Hampton, N.H.

One of my desk drawers holds a collection of greeting cards — birthday, get well, bon voyage, congratulations, and sympathy cards. I have them on hand to send my friends on these occasions, and I have often been thanked for my thoughtfulness.

But I am not a thoughtful friend. I know it now that I have been confined to the house with a broken arm. The same friendly cards, plants and flowers have arrived at my house with messages of "Get Well Soon." They have cheered me when coming from friends and relatives at a distance who could not come to see me, but cards from neighbors and acquaintances who live near by have made me realize how thoughtless I have been in the past. I have sent the same sort of messages but never followed them up by phoning or calling on the patient and finding out what she might need.

The neighbor who sent in dinner for my husband (who wants to help but is frustrated in the kitchen) and me is a real friend, and we blessed the thoughtful person who brought us a meat

loaf that provided a main course for three days.

Being alone all day, while my husband is at work, and unable to drive a car to do the marketing, I appreciate the calls of friends who ask to take me to town or to buy my groceries. And the neighbor who offered to take me to the beauty salon to have my hair done, when I had been combing it with one hand for days, is a true friend.

As I wander around the house helpless and uncomfortable, I think of the friends I have neglected when they needed help. My phone calls of "Let me know if I can do anything" were not sincere, as I did not follow them up by real offers to help the person dress or comb her hair, pick up a book at the library, or mail letters — all the every-day things a healthy person does for herself and misses when she is handicapped by an accident or illness.

My broken arm has made me think. I know now that my days have been too full of my own selfish activities when perhaps my friends have needed me. To have a friend, I must be one.

What's Your Hobby?

Our family's hobby is collecting insulators. My husband and I collect glass ones, and our small son collects ceramic ones. We spend a lot of our free time hiking and hunting for them.

Insulators come in all sizes, shapes and colors. They look pretty on our window ledges. We would be interested in hearing from anyone else who shares our hobby — Mrs. R. G. Meszaros, Box 37A, Titusville, N. J. 08560.

Old Cookbooks

My hobby is making a survey of organizational cookbooks — those assembled by women's groups and containing recipes. I would very much like information about such books published in the 19th Century. Thus far I have discovered no title before 1805, and I should be most interested in learning of anything earlier. — Miss Hyla Snider, 24 Old Norwich Rd., Quaker Hill, Conn. 06375.

Writing Instruments

In 1943 my grandfather started me on a journey through the "world of writing instruments." I have added many pieces to my collection through the years — wood casement pencils, mechanical pencils and now ball points. All of these are either in the antique or advertising category.

Two years ago I found out about the American Pencil Collectors Society, based in Sterling, Kansas, and joined the organization. Since then I have traded pencils and ball points with people in nearly every state. Our

hobby does not end with trading; we also pursue the history and development of writing instruments. — Mrs. Marlynn Olson, 30 Washington St., Randolph, N. Y. 14772.



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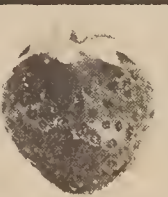
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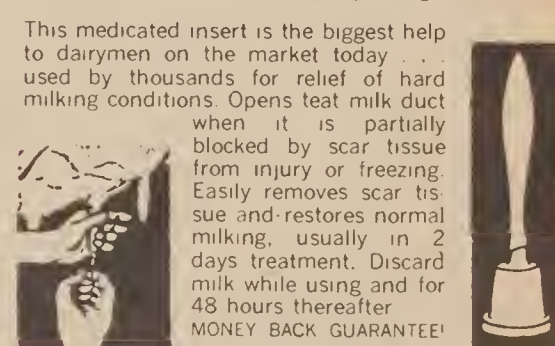
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Ed Eastman's Page

FOR A BETTER WORLD

Many times in years past I have stood on one of the busiest corners of Ithaca streets and watched the hurrying crowds go by. They were of all kinds and descriptions . . . but one thing they had in common . . . almost without exception each one was smiling. They might be loaded down with bundles and tired from Christmas shopping, but the thought that they were doing something to gladden the heart of a friend or relative was reflected by the happiness that shone in their faces.

How many, many times I have wished that the spirit of happiness which is so evident at Christmas time might be extended throughout the year.

Of all the gifts that you might give to a loved one, there is none

greater than a cheerful heart. I often think of the old family doctor we had when I was a boy. He no sooner walked into a sick room than the entire atmosphere changed from gloom to optimism, and unless the patient was desperately ill everyone was soon smiling. Good as they were, his cheerful personality was worth more than his pills.

How eagerly we watched the hill road down which the doctor came with his horse and buggy. And when he left, our gloom and pessimism had pretty much gone.

If we only could remember throughout the year how much a cheerful countenance and a smile mean to those we love . . . especially when they are depressed or sad, what a different world it would be.

IT HAS HELPED

I don't think that anybody likes to grow old, but there are things that lighten the darkening way. So far as I am concerned, the many letters I have received since my book "Journey to Day Before Yesterday" was published, come under this category.

I think that everybody . . . or at least nearly everybody . . . likes to believe that he has brought some joy into the lives of others. The letters I have received about "Journey to Day Before Yesterday" are proof to me that the book has helped older folks to grow old gracefully and peacefully, and the young people to know more of the ways of their fathers.

Here is the kind of letter that has repaid me in full for writing the book:

"Just can't remember when we did not take your paper. We have a copy of Ed Eastman's book 'Journey to Day Before Yesterday' and my grandchildren also have a copy. It is well read and re-read."—H. S. Wells, Shelton, Conn.

LIGHT UP YOUR FARMSTEAD

I have a friend who was raised on a prairie farm where the land was level for miles, and where there were blizzards that lasted for days.

Sent to round up some horses, one blizzard day my friend got lost and nearly lost his life, until he saw a light placed in the window by his mother to guide him home again.

Today that wouldn't happen if all the barn and house yards were lighted by electricity. Even here in our hilly country electrically-lighted barn and house yards would be excellent, especially on our short winter days.

That good farm magazine, Hoard's

to train them early enough. What do you think?

There is the other extreme where a home is kept in such perfect order that it is not livable.

When I was counseling college students I have had them tell me that they hesitated to bring a guest into the room because a roommate was so slouchy with his or her books, papers and clothes.

For that kind of slouchiness, in my opinion there is no help, because the child was not taught early enough in his or her own home to correct the fault.

"NUDGE ME

WHEN I'VE SAID ENUF"

If there is anything that is irritating, it is to go to a meeting or a conference early and wait for the chairman to call the meeting to order way past opening time. I have seen many good meetings get off to a very poor start because the chairman was not on his job when he ought to be.

This is the time of year when hundreds of meetings and conferences are being held all over the country, and it is too bad that so much time is wasted because a meeting was not well organized and did not get off on time. Most people are very busy, and they resent a meeting or a conference that gets nowhere.

Another thing that often spoils a meeting is that so many people come late. Mr. Jones says to his wife, "There is no hurry; no one else will be on time." So they drag in late, stumbling over other people's knees.

A speaker will get his points across much more clearly if he uses charts or drawings.

The chairman should see to it that the room or hall is comfortable. The audience's attention cannot be held if the room is too cold or too hot.

Stick to the point or the theme of the meeting. The purpose of the meeting should be stated by the chairman at the beginning. The audience should be in order at all times, and it is the chairman's duty to see it is.

The meeting should reach some conclusion, which finally should be put into a resolution and sent where it will count. There is no purpose in holding a meeting that gets nowhere.

If the meeting is long, take a coffee break or a short recess . . . but return promptly when the chairman calls the meeting to order again.

To get the most out of a meeting it should be well organized beforehand, and care should be taken that the speakers are not too long-winded. Radio and television have been a help in shortening long-winded speakers. If there is a guest speaker, the audience should not be all tired out before he is called on.

PRACTICE WHAT YOU PREACH

It seems to be a sad fact that the most difficult competition that dairy-men have in the market place is among their own organizations.

This is one good reason for consolidation of small cooperatives.

I have often said that dairy leaders need to practice among their cooperatives the cooperation they preach to individual dairymen.

RACE SUICIDE

I once had a friend, a local sheriff, who was in position to see many problems that do not trouble most of us. When such a problem would arise he would shake his head and say, "too many folks, too many folks!"

Look at the troubles of almost any country in the world and you will agree that most of them stem from over-population. Look at Asia with its starving millions. Look at the great wars down through history and you will agree that, as my friend said, the war started because there were too many people . . . which resulted in the leaders reaching out to acquire more land by grabbing other countries smaller and weaker.

Those of us who have acquired some years realize that life today is far more complicated than it was when we were young, the reason being, too many folks.

See how the automobile has complicated modern life.

In 1900, less than a hundred years ago, the population of the United States was about seventy-six million. In 1969 it was over two hundred and three million, and by the year 2000, not so far away, the population will be . . . well, you guess . . . Whatever you guess it will be too little, and population will continue to increase by leaps and bounds.

It is far easier to call attention to problems than to solve them. What are we going to do about the growing population? It is our number one problem. Common sense points to only one answer and that is birth control.

While birth control seems to be the only remedy, in itself it raises almost as many problems and arguments as the problem itself. Yet, if you will stop and wonder what the world will be like for your great-grand-children if something is not done to control population growth, you will agree that something must be done immediately if the human race does not run itself off the face of the globe.

CHESTNUT

My friend, Maynard M. Morrison, tells me about a man whose wife went away for a few days' vacation leaving him and a male cousin to keep house together.

The man had a garden of which he was very proud, especially of a lot of tomatoes which were particularly nice. So morning after morning there were tomatoes for breakfast.

After about three mornings the man asked his guest what he would like for breakfast. The guest replied promptly and with emphasis, "One hard-boiled egg . . . and I defy you to put a tomato inside it."

American Agriculturist, January, 1971

Happy New Year

May 1971 Be The Best One Yet

For You And Yours!

DO YOU REMEMBER WHEN?

The winter season is a fine time to reminisce, so won't you enjoy with us some old "hum-bugs" that were printed in our Service Bureau columns fifty years ago? These were taken verbatim from issues published in 1920:

"Please let me know if I could learn aviation by a correspondence course? I have a chance to take such a course for \$100."

We certainly do not think — we know — you could not become proficient in such work by correspondence. To become an aviator one has to do a great deal of studying under competent instructors right at hand. Even then everyone studying cannot fly.

Some correspondence course fakes are getting to be the limit. The next thing we know they will be offering to make you president for the small fee of \$100. Our advice is to have nothing to do with such wild schemes.

"On October 7, Frank Shaw, 6445 Emerald Avenue, Chicago, petitioned for divorce from his wife, Bettie, on the ground that she refused to get up an hour earlier than sun time to get his breakfast; so, as he worked by Daylight Saving time, he had to breakfast at restaurants. She did not refuse to get his meals by sun time."

Another reason for abolishing fake time! Thousands of women feel just like dear little Bettie, except that they haven't refused to get breakfast an hour earlier. To speak seriously, one of the greatest objections to fake time is its bad effect upon the health of women and children. Let us hope that the elections will bring a governor and legislature to the

respective states who will abolish fake time.

"I have a chance to invest in shares of a concern that expects to put on the market a rotary plow. It consists of teeth on a cylinder. Power from the machine or tractor revolves the disk, the teeth tearing up the soil instead of turning over a furrow like a plow. Apparently it leaves the soil in fine shape so that by attaching the seeder and a light harrow, the one machine will plow, disk, harrow, pulverize, work, roll and drill in the seed at one operation. What future would you predict for an implement of this kind if the business is handled properly and honestly?"

The principle referred to is not new. Several patents pertain to its application. One of the first to be built was the Hessian deep tiller upon which considerable money was expended. In theory much can be said for the idea. We do not know of any such machine that has yet been a success with the practical farmer or financially profitable to those who furnished money to develop it. It may take some years, numerous changes and a lot of money before this principle is successfully applied by farmer or investor.

"We recently moved here from a small town and find many problems to solve. What size engine is required to run a washing machine and ironer? Would you advise getting an engine to operate the washing machine and ironer or a good electric light plant?"

You will need just a small engine to operate your washing machine, mangle, etc. Ordinarily, a one horsepower engine will be more than ample, but such a small engine is hardly economical as it cannot very well be used for many other things which require greater power. I would recommend that you get a good electric power plant. You can use this both for lighting and power purposes. Electric lights, as you no doubt realize, are a wonderful convenience but I believe you will be even more delighted with the marvelous flexibility of electricity as a source of power. With electricity in the house you will have power to do your washing, ironing, cream separating and any number of other things.

"Do you think an investment in Evangeline Oil Company of New York a good one?"

Not as "fair" as name would indicate, we would say. It seems this company has not produced oil as yet, simply drilling for it. Oil schemes, at the best, are highly speculative, and more so when production is still underground.

Why not place your spare money in Liberty bonds, which are a good buy at present market quotations, or into improved equipment on the farm? Either of these last forms of investment should net good returns.



George Vonhof of Walworth, N.Y. received \$4135.00 from local North American agent "Dutch" Reynolds, Palmyra, N.Y. Mr. Vonhof, a carpenter, lost his left eye accidentally when removing gutters from a house. While hammering on another hammer a piece of steel chipped off and flew into his eye.

Mr. Vonhof carried four North American policies for three years before his accident. This combined protection paid \$2925.00 loss of eye benefits and \$1210.00 medical expense benefits. He wrote this letter of thanks:

"After losing my left eye it was gratifying to know I had North American insurance to do the job for me. I thank you for your courteous and prompt manner in handling my claim and certainly recommend your protection for everyone."

George Vonhof

OTHER CLAIMS PAID

A friend's name may be in this list.

Edward J. Battle, Altamont, N.Y.	\$ 200.00	Blanche Helbook, Syracuse, N.Y.	\$ 548.08
Hit by drum—broke arm		Auto accident—broke shoulder	
James N. Dyke, Almond, N.Y.	477.50	Alfred Wilbur, Otego, N.Y.	130.00
Hit by baler kicker—broke arm		Slipped off wagon—inj. elbow	
Gordon Hibbard, Whitney Point, N.Y. ...	234.28	Frank L. Young, South Colton, N.Y.	317.13
Hit by piece of wood—inj. ankle		Tree fell—broke leg	
James Eddy, Little Valley, N.Y.	1025.50	Eugene LaShomb, Brasher Falls, N.Y. ...	235.71
Pushed by cow thru door—cut tendons		Fell over barb wire—broke wrist	
Sharon K. Forness, Allegany, N.Y.	1355.51	Bruno Hoffmann, Schoharie, N.Y.	260.00
Fell from auto—inj. knee		Stepped on by ram—inj. foot	
Richard Anthony, Union Springs, N.Y. ...	192.84	Donna Rae Goldy, Watkins Glen, N.Y. ...	924.53
Cranking engine—broke wrist		Thrown from horse—inj. shoulder, hip	
Frank Kubat, Union Springs, N.Y.	620.00	Gerard Heroux, Interlaken, N.Y.	719.70
Auto accident—broke leg		Kicked by cow—broke leg	
Edmund Kujawa, Forestville, N.Y.	314.28	Arthur R. Turner, Hornell, N.Y.	944.04
Pinned by cow—broke wrist		Fell from tree—multi. injuries	
Anne Landy, Jamestown, N.Y.	639.14	Esther Stewart, Addison, N.Y.	1000.00
Auto accident—broke ribs		Run over by tractor—broke leg	
Ennis A. Reese, Pine City, N.Y.	222.57	Mame E. Horton, Nichols, N.Y.	271.75
Slipped on ice—broke wrist		Tripped on carpet—injured hip	
Frank Frycek, Horseheads, N.Y.	137.82	Walter Rumsey, Spencer, N.Y.	1395.00
Pressure cooker blew up—burns on face		Hit by car—broke leg	
Bernice Cuyle, Norwich, N.Y.	630.48	Franklin Knowlton, Oryden, N.Y.	145.72
Sliver in finger—infection		Fell off horse—broke arm	
Clarence W. Oownes, Cortland, N.Y.	338.56	Elias A. McCord, New Paltz, N.Y.	467.54
Kicked by cow—broke fingers		Thrown from bike—broke cheekbone	
John Bartschi, Walton, N.Y.	1675.00	Richard L. Ocque, Marion, N.Y.	179.95
Tractor hit by car—inj. back		Caught in press—inj. hand	
Richard T. Nevin, Fishs Eddy, N.Y.	1105.71	Peter J. Raes, Lyons, N.Y.	804.18
Motorcycle Acc.—broke shoulder		Ran over by tractor—broke ribs	
Oale Mammoser, Eden, N.Y.	410.00	Elizabeth Shove, Marion, N.Y.	1133.93
Mini-bike collided—inj. hand		Auto accident—whiplash	
Eugene Kehr, Lawtons, N.Y.	345.72	Teresa Keem, Arcade, N.Y.	454.42
Knocked down by heifer—broke ribs		Auto accident—whiplash	
Michael McCusker, Keeseville, N.Y.	1120.00	Paul J. Meyers, Attica, N.Y.	337.86
Tractor accident—inj. arm		Fell from ladder—inj. ankle	
Linda L. Tuttle, North Bangor, N.Y.	107.13	George J. Irwin, Crooked Creek, Pa.	722.05
Chain saw acc.—cut thumb		Fell off step ladder—broke ribs	
Paul Graham, Batavia, N.Y.	2449.97	Sam Calabrese, North East, Pa.	341.75
Tractor-towing acc.—crushing injury		Auto accident—inj. leg	
Ivan S. Moore, Medusa, N.Y.	264.28	Donald R. Murphy, Union Dale, Pa.	1295.00
Truck caught fire—burns arm, face		Motorcycle accident—broke wrist	
Kurt Snyder, Newport, N.Y.	724.51	L. Maurice Snyder, Jermyon, Pa.	300.71
Auto accident—head injury		Kicked by cow—inj. knee	
Opal C. Ritchie, Theresa, N.Y.	237.55	Frank Westra, Belvidere, N.J.	688.61
Hit by baler kicker—cut hand		Auto accident—mult. cuts	
Oorothy Oekin, Carthage, N.Y.	517.80	Kenneth Rydell, Blairstown, N.J.	235.72
Fell off stool—inj. shoulder		Kicked by cow—injured leg	
Philip R. Weller, Lowville, N.Y.	218.16	Vernon E. Roszel, Cranbury, N.J.	528.64
Thrown from bicycle—head injury		Tractor hit by car—neck inj.	
N. Earl Wilkinson, Morrisville, N.Y.	430.41	Everett L. Boyden, Conway, Mass.	503.00
Fell and hit drawbar—broke ribs		Tractor accident—inj. shoulder	
Clarence Heroth, Fort Plain, N.Y.	415.00	Hazel L. McCarty, Skowhegan, Me. ...	111.43
Hit by falling ice—broke ankle		Fell down steps—broke wrist	
Samuel C. Pitcher, Warners, N.Y.	310.70	Geary A. Hurd, Hampton, N.H.	236.42
Fell in river—inj. chest		Kicked by cow—inj. leg	
William Brahm, Canandaigua, N.Y.	390.50	Alan G. Oarby, Alburt, Vt.	575.39
Kicked by cow—inj. leg		Auto accident—multi. cuts, bruises	
Wilfred Miller, Albion, N.Y.	506.35	William F. Hollister, Bennington, Vt.	535.00
Fell off ladder—broke leg		Caught under snowmobile—inj. foot	

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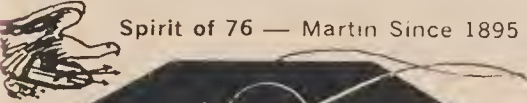
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Jan. 4-5 - Annual Ohio Roadside Marketing Conference, Ohio State University, Columbus, Ohio

Jan. 6-7 - New England Fruit Meetings and Trade Show, New Hampshire Highway Hotel, Concord, N.H.

Jan. 9 - New York Beef Cattlemen's Association Annual Meeting, Batavia, N.Y.

Jan. 11-15 - 55th Pennsylvania Farm Show, Harrisburg, Pa.

Jan. 13 - New York State Agricultural Society Annual Meeting, Albany, N.Y.

Jan. 14 - Market Hog Pool Annual Meeting, Caledonia, N.Y.

Jan. 15 - Feeder Pig Sale, Caledonia, N.Y.

Jan. 18-19 - New England Farm Electrification Institute, University of New Hampshire, New England Center, Durham, N.H.

Jan. 18-22 - Annual Beef Cattlemen's Short Course, Cornell University, Ithaca, N.Y.

Jan. 19-21 - New York State Horticultural Society Meeting, Rochester, N.Y.

Jan. 20-21 - Empire State Soil Fertility Association Meeting, Syracuse, N.Y.

Jan. 20-21 - Massachusetts Dairy Farmers' Seminar, University of Massachusetts, Amherst, Mass.

Jan. 21-23 - New York State Holstein-Friesian General Meeting, Syracuse, N.Y.

Jan. 23-30 - New Jersey Farmers Week

Jan. 26 - New Jersey State Horticultural Society Annual Meeting, Holiday Inn, Trenton, N.J.

Jan. 26-28 - New York State Horticultural Society Meeting, Kingston, N.Y.

Jan. 26-28 - Vermont Farm Show, Auditorium, Barre, Vt.

Jan. 30 - Eastern Angus Association Futurity Show and Sale, Harrisburg, Pa.

Feb. 2-3 - Second National Charolais Show, Florida State Fair, Tampa, Fla.

Feb. 5-6 - School for Christmas Tree Growers, Cornell University, Ithaca, N.Y.

Feb. 10-12 - Cornell University Agricultural Waste Management Conference, Syracuse, N.Y.

Feb. 11 - Annual Finger Lakes Grape Growers Convention, Grange Hall, Penn Yan, N.Y.

Feb. 18 - Regional Lawn and Garden Retailers Day, Half-Way House, Darien, Conn.

Feb. 20-28 - National Antiques Show, Madison Square Garden, New York, N.Y.

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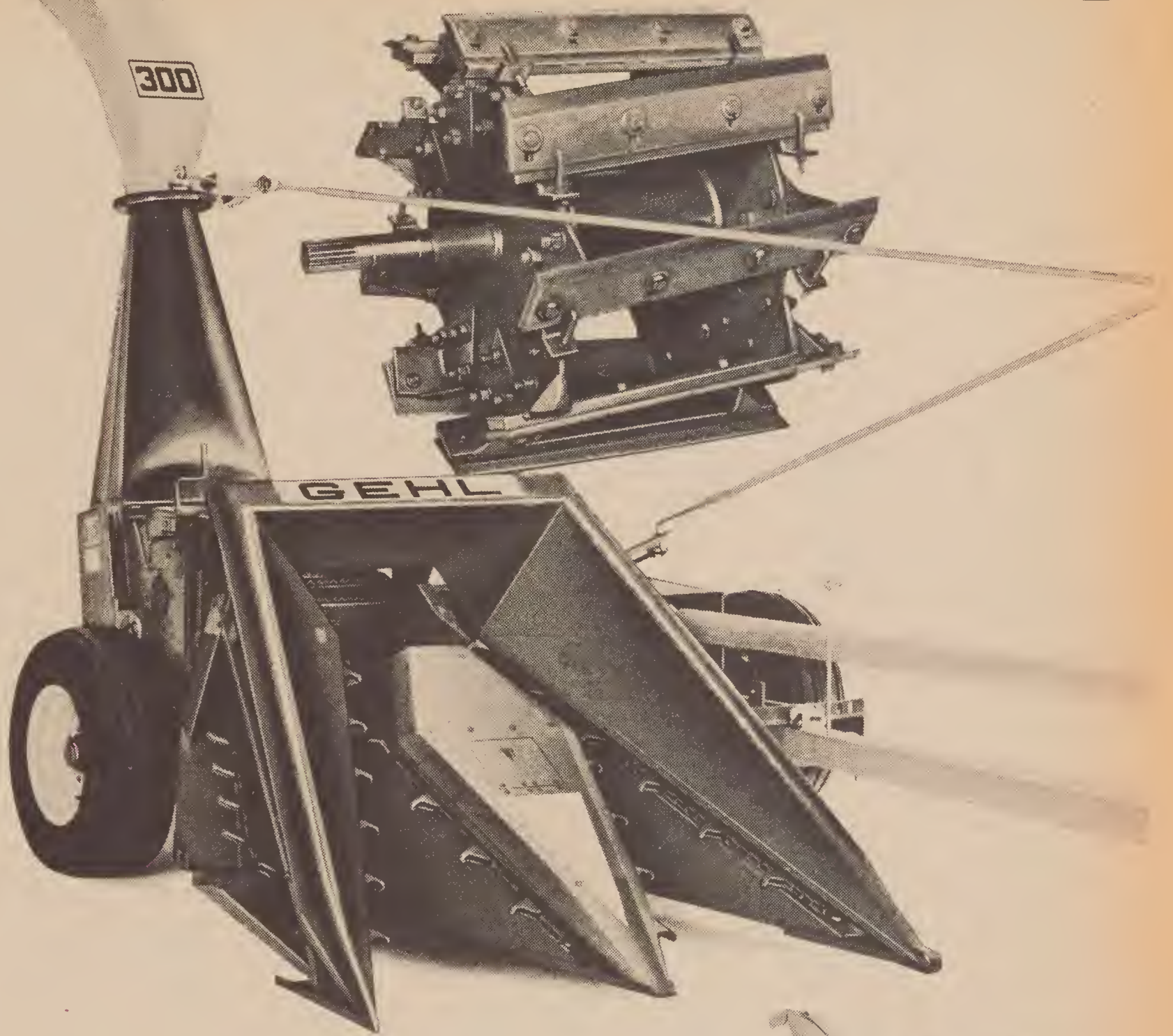
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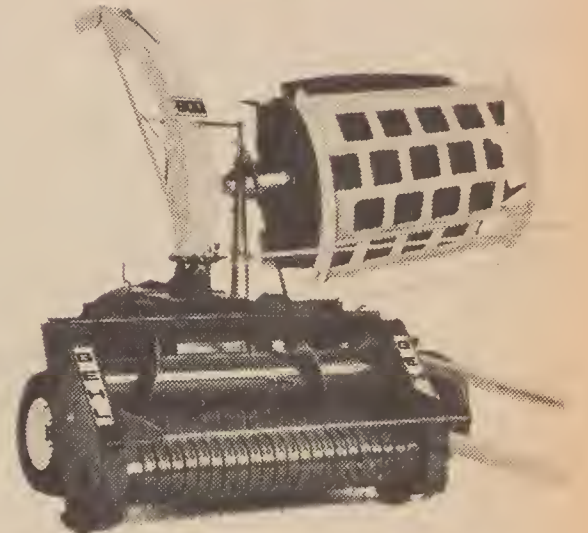
Willard Lipe, Limestone Creek Guernsey Farms, Manlius, New York, cuts up some apple wood for the fireplace. Photo: Joseph Albino

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EDITORIALS

by GORDON CONKLIN



THROUGH THE GATEWAY

Just before the coming of a new year, Ed Eastman lay down his burdens and peacefully moved through the gateway called death. At 85 years of age, he had packed several lifetimes into an active . . . at times even tumultuous . . . career.

His pedigree is long and unusually impressive . . . including roles as educator, historian, organizer, author, editor, and counselor of young people. It was his vision that helped create New York State's present centralized school system. He was one of the State's first county agents, and played an important part in the formation of the Dairymen's League . . . now Dairyalea Cooperative, Inc. As editor of *AMERICAN AGRICULTURIST* from 1922 to 1958, Ed's writing became familiar to rural families across the Northeast . . . and he continued to write for AA until his death.

Ed helped organize the New York State Conference Board of Farm Organizations, a group with its influence now further enhanced by its participation in the Council of Agricultural Organizations. He was the first recipient of the Alfred E. Smith Award for service to education, and in 1967 was awarded the New York State Farm Bureau's Distinguished Service Award. He wrote a number of books, the latest entitled "Journey to Day Before Yesterday."

These are only highlights in a long and vigorous life, but I'll list no more claims to fame because Ed was always a bit uneasy about long pedigrees . . . especially his own. Furthermore, formal pedigrees tend to distort the real man, doing an injustice to the truth by omitting all the negatives.

Ed was an unusual human being . . . with all that implies of human frailty intermingled with towering virtues. As is the case with all great men, a comparison of his plus and minus entries in the Ledger of Life leaves no doubt that he made a constructive impact beyond calculation.

Although Ed rubbed shoulders with governors and presidents, he never forgot the folks who live up and down the highways and byways of rural America. Perhaps the most touching testimony to his love of people were the letters from readers who often began, "Although I have never met you, I feel as though I've known you all my life."

His days were often wracked by sorrow and pain, but he never lost the ability to laugh. He'd often say with a grin, "My funny stories will be remembered far longer than my serious stuff . . . life is a pretty grim business without a chuckle now and then."

It seemed appropriate that Ed Eastman left our midst in the last days of the waning year . . . which at the same time is the threshold of a new year. For one who moved so resolutely from one chapter of life into another, it was fitting to embark on a new journey just as the strengthening daylight began its ageless promise of renewed life soon to come.

NAME CHANGE

It's probable that 1971 will see the name of the New York State College of Agriculture change to the New York State College of Agriculture and Life Sciences. The College's faculty has approved, as has the Cornell Board of Trustees, and State legislative approval is expected.

Most colleges of agriculture in the

Northeast have made a similar change . . . at least one (Rhode Island) dropped the word "agriculture" entirely from its name. Agricultural fundamentalists will decry the outcome of these exercises in semantics, but college administrators recognize the need for a collection of words implying a broad spectrum of concern and activities that are relevant to the needs of society.

"Agriculture" . . . involving the whole agribusiness complex . . . has become far more than farming, but the majority of people still interpret the word narrowly as encompassing only the tilling of the soil.

I don't decry the re-jiggering of names in an attempt to overcome this tendency. However, we who are involved with agriculture are put on notice once more to continuously present our case concerning the importance of farming and agribusiness to everyone. Otherwise, an apparent de-emphasis of agricultural education may rapidly become an actual one.

BACK TO THE PILE

Growing up on a dairy farm in the hills of New York's Southern Tier, I always knew what I'd be doing part of each fall. When the slashing snowstorms of winter pounded the area, we piled manure from the herd . . . then in October pitched it (by hand) into the honeywagon for spreading.

The years passed, and I became exposed to the experts on such things as proper manure handling. They told me that piling manure was both inefficient and agronomically unsound, that it should be spread daily to achieve the best use of equipment and labor.

But now more years have passed, and the wheel of recommendation has turned another 180 degrees. The word today is that manure should be piled during the winter in order to prevent the runoff from frozen ground that may "pollute" lakes and streams. So now it is back to the pile as far as the experts are concerned . . . and that earthy definition of the meaning of the abbreviation "Ph.D." takes on new relevance.

While traveling in Canada's province of Ontario, I have often noticed enormous manure piles outside dairy barns . . . built by extending the gutter cleaner up long inclined planes from which the manure drops directly on the pile. All a dairyman there has to do to clean his barn is to throw the barn-cleaner switch.

If we're now going to pile manure, let's think in terms of modifying health regulations to permit it to be done in an economical and efficient way. Maybe the Ontario people know something we don't!

STILL GUNNING

The American Heart Association keeps up its drumfire attack on the animal industry of the nation. Not long ago, the organization held a press conference and released a six-page statement that included this recommendation:

"The public is urged to avoid fat cuts of meat, butter, egg yolk, bacon, lard, suet and baked goods and dairy products high in saturated fats and cholesterol."

Per capita consumption of fluid milk products declined by 20 percent in the U. S. from 1960 to 1970, and is predicted to drop another

two percent during 1971. Although the downward trend in per capita annual consumption of eggs tended to slow during the 60's, it is 317 in 1970 . . . down from 334 in 1960. Obviously, something has caused major shifts in consumer eating habits during the last decade.

There are competent nutritionists who question the desirability of recommending major shifts in eating patterns on the basis of the information now available. Furthermore, there is some evidence that the incidence of heart disease is not correlated to the kinds of food eaten . . . although related to the amount of food consumed by the individual.



A SOLEMN OF THE 20TH CENTURY

The world is impure, I shall always want
On the other side of the fence are greener
pastures

My waste pollutes the still waters
But blaming farmers restoreth my soul.

I accuse farmers of poisoning the earth for
the sake of mine innocence

Yea, when I shadow the valley with the
deadly exhaust of my chariot

I feel no responsibility
For my cigar and my cigarette, they comfort me.

I preparest my fireplace before me in the
presence of mine woodsmoke

I drivest my snowmobile like the wind in
the late hours of the night watch

Anointing the night with ear-splitting
sound

My beer can runneth empty.

Surely litter and pollution shall follow me
all the days of my life

And I shall rationalize in a glass house
forever.

Omen



LEGION OF COURAGE

It's my privilege to periodically travel across the Northeast, visiting rural families up and down the highways and byways of the land. There is nothing I do that is more inspiring . . . especially to observe, and share thoughts with, those people who bear with courage the emotional and physical scars that life brings to us all.

There is a dairyman who works cheerfully . . . in spite of the stump left years before by a remorseless cornpicker that savagely tore off his hand.

I ask about the photograph on the piano of an only son, and the normally-cheerful face of a mother shadows as she tells me that he sleeps forever in a military cemetery far away.

A fruit farmer brings his wife a box of candy . . . a simple gesture that helps to keep alive a romance that could so easily have withered twenty years before when his young wife was consigned by polio to a wheel chair for the rest of her days.

A young football player, whose high school team had been crushed on the gridiron a few days before, limps about the milking parlor without complaint as he stoically carries his end of the workload.

The noisy juveniles who loudly condemn our society have surely not met these people . . . or, if they have, were blinded by their own arrogance to the courage exhibited by ordinary folks in the face of pain, sorrow, and defeat. Or maybe courage . . . as with so many other human characteristics once thought desirable . . . has been relegated to the outhouse by those who joylessly embrace the negative forces of our time.

Count me in the ranks of those who are deeply moved by the inner strength of so many people among those whom it is my privilege to meet amidst the passing parade.

American Agriculturist, February, 1971

LIVESTOCK



Cattle Vaccine — Leptospirosis, a disease that has long plagued the cattle industry, may be brought under control with a new experimental vaccine proven to be safe and effective in tests at the National Animal Disease Laboratory in Ames, Iowa. Made from a special strain of *Leptospira pomona*, the vaccine apparently does not produce the disease, cause fever or interrupt pregnancy;...and protects against infection in the urinary tract, as well.

Champions — Charolais crossbreds dominated many of the major livestock shows in 1970, and were chosen both grand champion and reserve grand champion steers at the last International Livestock Exposition in Chicago. It was the second year in which crossbreds of any kind were permitted to show at International, and also the second year in which Charolais crossbreds produced the grand champion entry.

Exotics — American Breeders Service, Inc., De Forest, Wisconsin 53532, has semen available from beef bulls of the exotic breeds... Simmental, Limousin, Maine-Anjou, Lincoln Red and Charolais. The new home for these bulls is at Calgary in Alberta, Canada.

Liver Abscesses — A 5-percent hay equivalent in a fattening ration gives the greatest percentage reduction in liver abscesses in cattle as compared to an all-concentrate ration. So say researchers at the University of Nebraska following a study of 2,522 animals on feeding experiments.

Only slight further reduction of abscesses was found when cattle were fed more than 5-

percent roughage equivalent. Livers of 625 animals (24.8 percent of the total) were condemned for abscesses.

The effect of liver abscesses on performance is revealed in that daily gains decreased by 6 percent, grade was depressed .1 of a grade, and dressing percent lowered by .48 percentage units as compared to those of animals with healthy livers.

In addition to the roughage feed in the ration, low-level continuous feeding of antibiotics further reduced the incidence of liver abscess.

Good Beef — To educate students and homemakers on the subject of beef as a convenient, versatile and economical food that's good anytime, the Beef Industry Council of the National Live Stock and Meat Board uses its new film entitled "Beef for All Occasions."

In the classroom, it's shown as a 21-minute film. For homemakers watching at home on their television sets, it has been edited into five separate four-minute short subjects.

Besides being available on a free loan basis, "Beef for All Occasions" may also be purchased by groups who have a regular demand for the film. For additional information, write to: Beef Industry Council of the National Live Stock and Meat Board, 36 South Wabash, Chicago, Illinois 60603.

Meat Market — A study of how consumers spend their money in food stores (conducted by Marketing Magazine) shows shoppers spent just over \$15 billion for red meat products in 1969. How much did other products bring? In billions of dollars: poultry, 1.9; milk, 2.3; produce, 7.3; baked goods, 4.8; alcoholic beverages, 3.4; household supplies, 3.9; tobacco products, 2.8; other non-foods, 8.5.



With the support of Eastern A.I. Cooperative, a project has been completed to develop a new teaching unit for northeastern vo-ag instructors. Entitled "Maintaining a High Breeding Efficiency in the Dairy Herd," it is available on a request basis to the 350 agricultural instructors in New England and New York.

In the photo, Eastern field representative Dave Johnson presents a set of the materials to ag instructor Robert Watson at the LaFayette Central School in Onondaga County, New York.

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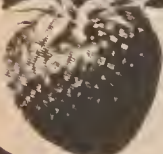
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OUR FOREST RESOURCES

by Henry S. Kernan*

FOR those who recognize forests as a link with pleasant, healthful conditions for living, a recent report of the Northeastern Forest Experiment Station offers considerable satisfaction.

The prospects for timber industries do not fare so well, but there can no longer be any doubt that New York's forests are increasing rapidly in area and volume. This may surprise those who fear woodland destruction and disappearance under concrete and stone.

Forests justly receive credit for their beauty and utility; this report reminds us also of their resilience and hardihood.

The Timber Resources of New York (U. S. Forest Service Bulletin NE-20 1970) reports on a re-survey made in 1968, eighteen years after the first survey. The data presented are derived from a combination of aerial photography, forest plot measurements, and interviews with those who grow and process wood.

The authors also considered such matters as timber-based industries, landowner attitudes toward their woodlands, and the timber supply outlook. Depending upon one's interest in the forest, the report will appear bright or gloomy, or more probably somewhere in between.

Growth

During the years 1950 through 1968, many significant changes took place. One of the most striking was the 14 percent increase in commercial forest land. New York now has 1.7 million acres more than in 1950. In all, we now have 17 million acres of forest, nearly 55 percent of the state. Of these, 14.2 million acres are both legally and ecologically capable of producing trees for industrial use.

Herein is a cause for satisfaction, because forests do have a range of useful functions . . . from such far-reaching ones as supplying oxygen and mitigating floods to the more homely ones of intercepting the noise of engines and the ugliness of junkyards and billboards.

Most of this increase has taken place west of the Delaware and south of the Mohawk. For example, there has been a gain of almost half-a-million acres of forested land in the upper

*Worcester, New York

watersheds of the Susquehanna and the Delaware Rivers.

The forests spread mostly by natural re-seeding over former agricultural land. The 20,000 or so acres planted each year do not account for the increase. Trees which appear on the land spontaneously are often more valuable for watershed, wildlife and beauty than are plantations of conifers. Their quality for industrial use is another matter. Usually it is much inferior.

The other changes noted in this re-survey refer mostly to the capabilities New York forests have for producing industrial materials. For some people, these aspects are regrettable . . . even immoral; for others, they constitute the most valid reasons for perpetuating the forest.

However far apart their views, both groups . . . and those in between . . . will be pleased to know that the volume of growing stock has increased by 20 percent and the volume of saw timber has increased by almost 11 percent. One reason is that timber removals have been consistently below the net annual growth.

Neither the general public nor the specialist should be indifferent to what constitutes the new volumes of timber and areas of woodland. Both can distinguish a healthy stand of sugar maple from a diseased stand of elm, and both prefer the former.

Pleased

They will be pleased to know that the valuable maples, oaks and ash have done extremely well. The handsome but rather useless beech and hemlock are barely keeping the volume they have. The volume of elm has decreased. In spite of the blister rust disease, the weeviling insect, heavy logging and an intolerance to shade, the favorite white pine has notably increased its area and volume.

However, all is not well with our New York forests. The size and quality of timber are declining. Most of the growth is taking place on small, defective, or otherwise useless trees. There is more open and poorly-stocked forest land than there was 20 years ago. That is the price we pay for leaving the planting of open land to the slow, uncertain process that nature provides.

Looking ahead, the report predicts that by the year 2000, New York's forests will be growing half-a-billion cubic feet each year of industrially useful timber. The amount actually cut and removed will depend upon demand and production costs.

Another very important factor will be policies of both public and private owners regarding commercial use of forest land. Non-commercial forest land over the entire state has increased almost 20 percent since 1950 to the present total of 2.9 million acres.

In sum, timber supplies and forested area will continue to increase, leaving an ever-widening choice of how to use them.

American Agriculturist, February, 1971

Dates to Remember

Feb. 1-3 - Annual Meeting
 Pennsylvania Horticultural
 Association, Yorktowne Hotel,
 York, Pa.

Feb. 1-4 - Annual Meeting
 National Dairy Council, Sham-
 rock Hilton Hotel, Houston,
 Tex.

Feb. 2-3 - Second National
 Charolais Show, Florida State
 Fair, Tampa, Fla.

Feb. 7-11 - National Associa-
 tion of Conservation Districts
 Convention, Pick-Congress
 Hotel, Chicago, Ill.

Feb. 10-12 - Cornell Agricul-
 tural Waste Management Confer-
 ence, Hotel Syracuse, Syra-
 cuse, N.Y.

Feb. 11 - Finger Lakes Grape
 Growers Annual Convention,
 Penn Yan Grange Hall, Penn
 Yan, N.Y.

Feb. 11-13 - American Poultry
 Industries Fact Finding Con-
 ference, Kansas City, Mo.

Feb. 15 - Washington's Birth-
 day (according to Uniform
 Holiday Bill effective 1971).

Feb. 17-18 - Annual Conven-
 tion, Rhode Island FFA Associa-
 tion, Scituate High School,
 North Scituate, R.I.

Feb. 18 - Regional Lawn and
 Garden Retailers Day, Half-
 Way House, Darien, Conn.

Feb. 20-28 - 27th Annual Na-
 tional Antiques Show, Madison
 Square Garden, New York, N.Y.

Feb. 25 - Symposium on Agricul-
 ture in the Environment (spon-
 sored by NYS Farm Bureau),
 Gotham Motor Inn, Syracuse, N.Y.

Feb. 25 - Fourth New Jersey
 Roadside Market Conference,
 Collins Auditorium, College
 of Agriculture, Rutgers Uni-
 versity, New Brunswick, N.J.

Mar. 10 - New Hampshire Horti-
 cultural Society Annual Meet-
 ing, Wayfarer Inn, Manchester,
 N.H.

Mar. 22-24 - National Dairy
 Herd Improvement Association
 Annual Meeting, Penn State,
 University Park, Pa.

Mar. 25 - Agricultural Leaders
 Forum, Cornell University,
 Ithaca, N.Y.



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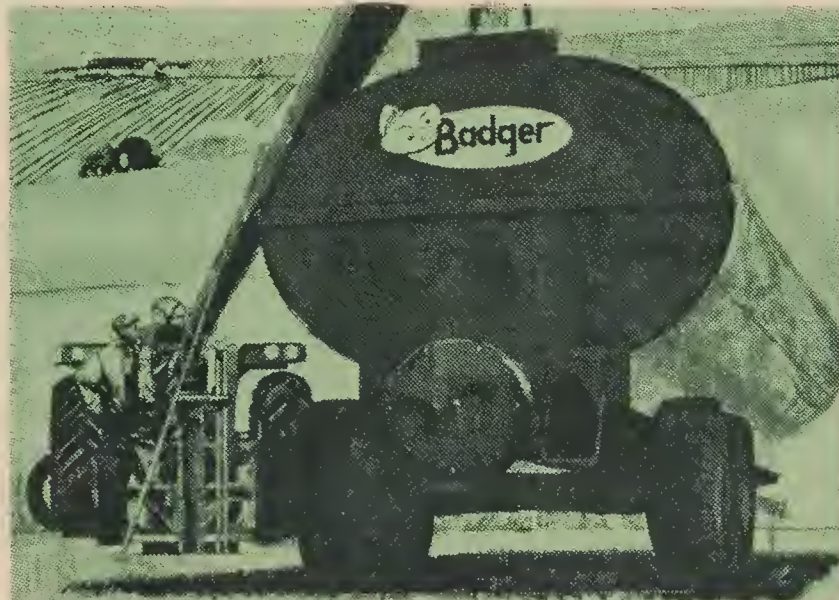
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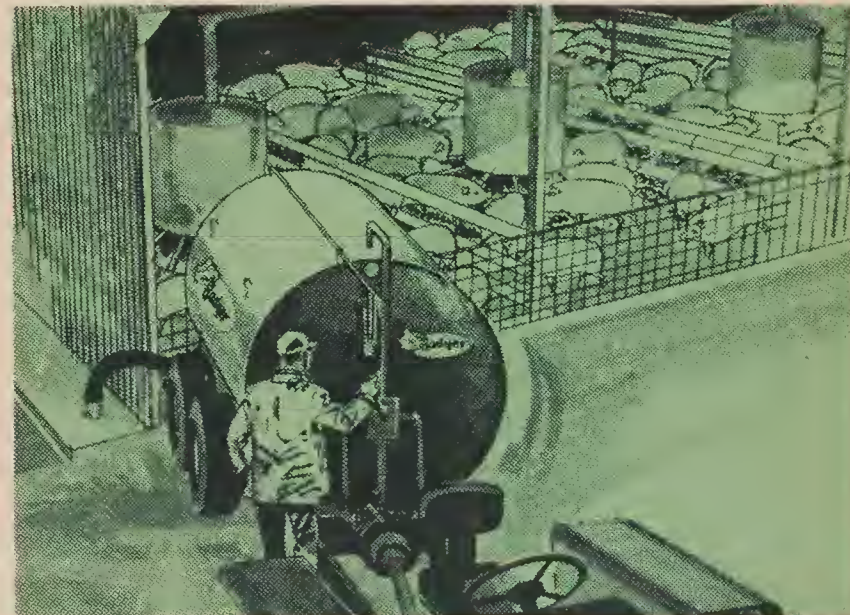
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Student ☐

WHAT AAMA IS DOING

by Kenneth Hood*

IT all began shortly after the American Farm Bureau Federation was born at Ithaca, New York in 1919.

One of the first programs to get top attention of Farm Bureau leaders when the American Farm Bureau Federation was organized was coop-

*General Manager, American Agricultural Marketing Association (an affiliate of the American Farm Bureau Federation).

erative marketing. This led to the enactment of the Capper-Volstead Act, which is still the basic federal law with respect to cooperatives. Several important cooperatives set up through our efforts in those early years are still in existence.

A number of state and county Farm Bureaus in the Midwest and western regions have had active marketing programs for livestock,

grain, dairy products, eggs and other important commodities for many years . . . some with almost fifty years of successful operation. Most eastern and southern Farm Bureaus confined their marketing efforts to promotion, legislation and encouragement of cooperatives until the early sixties. One noteworthy marketing achievement of the New York Farm Bureau in its early days was its co-sponsorship of the Grange League Federation (GLF), now Agway.

Birth of AAMA

The American Agricultural Marketing Association, better known as AAMA, was organized in 1960. Its stated purpose was "to assist state Farm Bureaus in carrying out their current marketing programs

and in setting up and coordinating new projects to cope with the many revolutionary changes which have been taking place in recent years."

This action did not result from a sudden new interest in marketing. It came about as a result of a realization that changes arising out of an increase in direct buying, a decline in central marketing, specialization, concentration of buying in the hands of fewer purchasers, volume buying on specification and the more general use of contracts in production and marketing called for new approaches in many cases and greater emphasis on the bargaining type of organization, especially where contracts are involved.

AAMA is a cooperative affiliate of the American Farm Bureau Federation. Its members include 39 state Farm Bureau marketing associations. It is financed by service fees, which are based on a specified percentage of the fees collected from the individual producers who are members of the state Farm Bureau marketing associations.

Marketing services are provided to producers of 31 different commodities. These services range from market information to contract negotiations and sales.

Solid Achievement

Major marketing efforts of AAMA have centered around processing fruits and vegetables, broilers and livestock. Some attention has also been given to grain, dairy products, fowl, popcorn and a number of other commodities.

Here are some highlights gleaned from our ten-year effort to improve farmers' income through group effort.

Tomatoes — Contract prices during the period of our operations increased from \$28.00 per ton to as high as \$40 per ton . . . an increase of \$12 per ton or 43 percent.

— Increased prices in favorable years, and held the line in unfavorable years.

— Performed better than growers who were not organized. As an example, California contract price dropped \$8 per ton in 1969 . . . our decline, 0 to \$2.00. California dropped another \$2 in 1970 . . . most of our contracts were \$1.50 to \$2.00 higher.

Asparagus — Contract prices increased as much as 8¢ per pound for 7" 4½" green in six years . . . a boost of almost 73 percent.

Other Processing Vegetables — have realized price increases and different contracts for early and late crops. The dollar value on improvement of terms of contracts add up to \$6 to \$250 per acre, according to growers participating in the program.

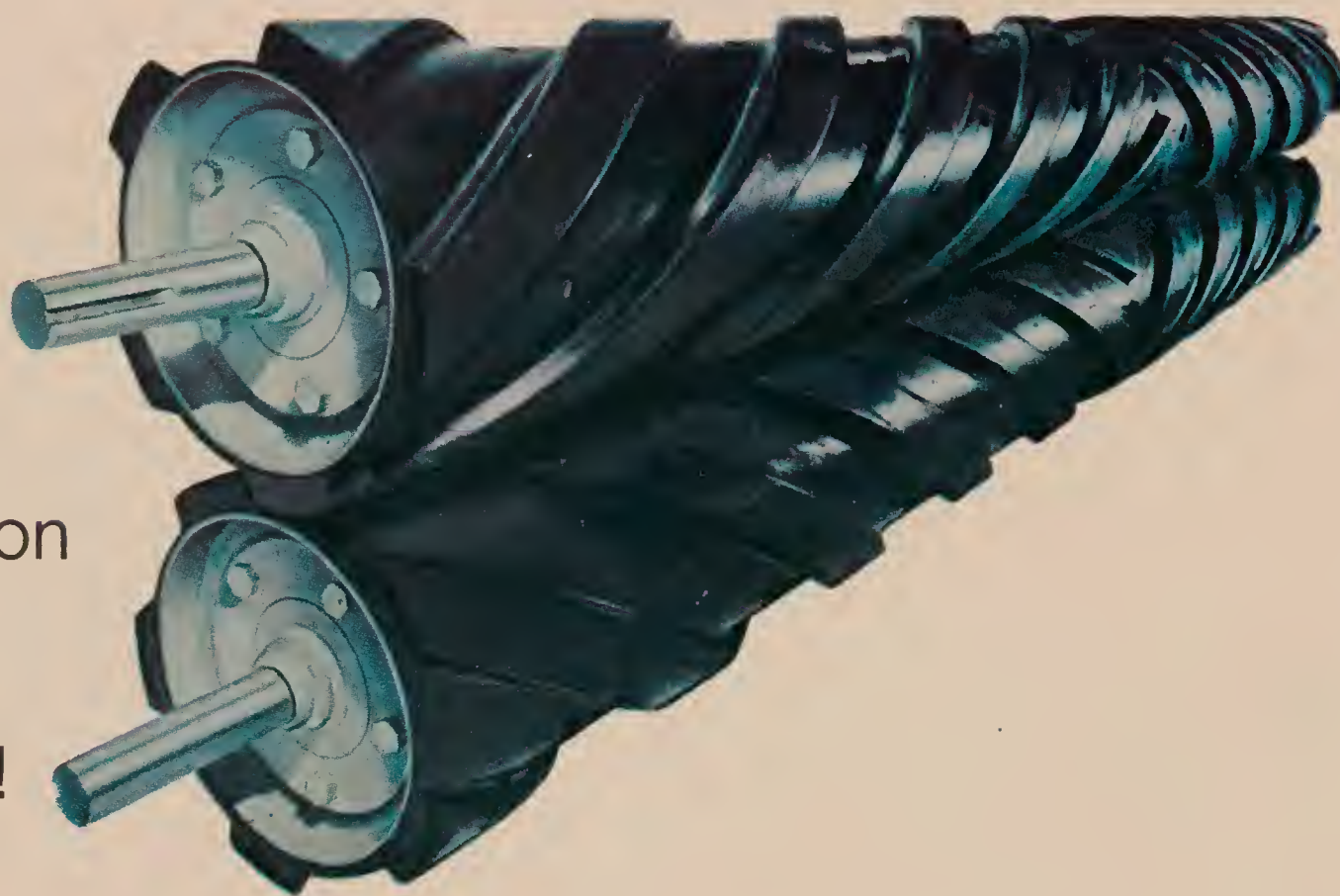
Grapes — Since 1967, prices for Concord grapes in the five major producing states have increased substantially, ranging from 50 percent in Washington State to almost 100 percent in New York. Part of the increase is a result of supply and demand factors, but a major part of the increase can be directly related to the Association's program.

Another major accomplishment in the grape program was the writing of contracts that stipulated the price the farmer was to receive before delivery. The old custom was to

(Continued on next page)

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Smart farmers will be seeing their New Holland dealer before they get all wrapped up in this year's hay!

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deliver on an "open" price contract. **Processing Apples** — Prices have been directly affected by a strong, positive Association program. We have been able to move prices above original processor offers through our program of education and information and our strenuous efforts to cause processors to meet or exceed our target prices, which are established each year after a careful analysis of all market factors.

We were less successful in 1970 than in other years because of a large carry-over of inventory, a let-down in economic activity, and a refusal of processors to take a realistic look at the true value of the crop. Greater membership support and more involvement of AAMA and the state Farm Bureau marketing associations in the actual bargaining for, or selling of, the crop appears to be necessary if we are to be more successful in the years ahead.

Cherries — Cherry pricing activities have focused growers' attention on the major problem of cherry marketing. Activities are being redirected toward dealing with factors that influence cherry users . . . such as pie brokers, pastry manufacturers, etc. . . . rather than the cherry processors.

Broilers — We organized the first bona fide national organization of broiler growers in the history of the industry. It stretches from the southern broiler belt to Delmarva to Maine.

Feeder Cattle — is the big project in the Livestock Division. March 30, 1970 marked the beginning of this new service for buyers and sellers of feeder cattle.

Feeder cattle are assembled and graded in the producing areas and moved direct to feed lots. Coordination is provided by the state Farm Bureau marketing associations and AAMA.

We are also developing programs for dairy replacements, slaughter hogs, feeder pigs and slaughter cattle.

Other Efforts

AAMA services commodities with an annual value in excess of one fourth of a billion dollars.

Marketing also is carried on by other marketing affiliates of state Farm Bureaus. Most of these are handling marketing programs that began before AAMA started.

If we add up all the marketing programs carried on by AAMA and the other Farm Bureau affiliates, we find that the volume of business in recent years has exceeded one billion dollars.

Farm Bureau members should remember these impressive statistics on market operations when questions are raised about Farm Bureau's experience in marketing, and its ability to operate successful programs.

Right Approach?

We feel the bargaining approach is best adapted to deal with recent marketing changes . . . especially those that have arisen out of an increase in direct buying, concentration of buying in the hands of fewer purchasers, volume buying on specifications and more general use of contracts in production and marketing. Bargaining is not a blueprint or a quick, painless pat answer to all farmer marketing problems.

Bargaining can do three things . . . and three things only:

1. Get the full market price based upon all the information that is available on production, consumption, carry-over, supply of competing products, business conditions and other economic factors. Some years prices will be lower than others; in other years, prices will be higher.

This approach is especially needed for commodities that are not normally sold on open competitive markets.

2. Earn more by supplying buyers better quality, more uniformity, larger volume and more uniform deliveries.

3. Provide special services to members such as purchase of supplies, labor procurement, mechanical

harvesting and special premium markets.

There are some things that bargaining can't do:

1. Get more than the product is worth.

2. Raise prices by withholding commodities after they are produced.

3. Corner the supply and force unrealistic prices. No association is going to control a major part of the supply and make it stick. Moreover, there are countervailing forces to be encountered, such as imports, substitutes, production from other areas and government action against unfair trade practices and monopoly.

It is interesting to note that the Grange tried to get control of the market in the 1890's. Farm Bureau tried it in the 1920's. And now

another organization is about to break its pick in the pursuit of the same elusive objective.

We are interested in more net income to growers. Better prices, increased sales and reduced costs are all necessary if we are to achieve our goal. Price alone won't do it. Bargaining will help to achieve this objective when circumstances are favorable for bargaining.

Farm Bureau has almost 1,900,000 member families . . . the biggest general farm organization in the world . . . organized in 49 states and Puerto Rico, and in practically every county in the nation where there is agriculture. It has the size, the breadth, the organizational know-how and the marketing skills to do the big marketing job that needs to be done.



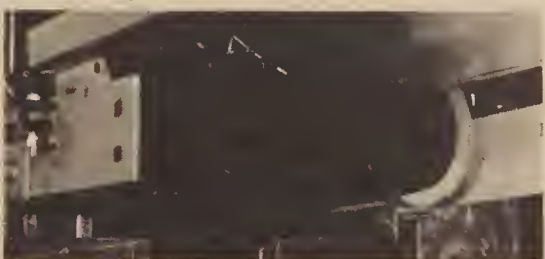
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Doc Mettler Comments on:

TRIBUTE TO THE PATIENT

VALENTINE Day will soon be here, and I would like to pay special tribute to a group of women who spend their lives being second in attention because of their husbands' devotion to other "ladies." These wonderful women are the wives of the men who make their living from working with cattle.

While still in high school, I remember that I failed to show up for

a date with the girl who is now my wife because a Brown Swiss heifer was having twins. Everyone of you who work with cattle has had similar experiences, and yet if the sort of women cowmen marry weren't as strong and devoted as they are, where would the cattle business be today?

With today's stress on herd-health practices and well-managed, factory-

like cattle farms, the cowman's wife should lead a more secure life . . . but emergencies still rob her of her husband at meal time, early in the morning, late at night and just before church or an important dinner party. Each cowman thinks he is the only one these things happen to, but even though cattle are now cared for en masse, it is the man who pays attention to each individual cow that makes the best living for his family.

I am happy that with today's larger farms, individual people can have some time off, but still the man that is on duty has to be around with all five of his senses working and ready for problems. Some human obstetricians have their patients go into labor at convenient hours by

using labor-inducing drugs. This may be okay for human patients, but when you want a cow to make 20,000 pounds of milk during a lactation, you let nature decide when she is going to calve!

Gestation

The gestation table will tell you that the cow should go close to 285 days from breeding to calving. Lots of cows will go much less than this for various reasons . . . and certain individuals a week or two more . . . but when one goes over 300 days, there is cause for alarm. A few years ago, I discussed fetal gigantism on these pages, where the fetus continues to grow and the cow does not make udder.

Twice in my life I have seen cows carry a fetus way beyond the normal period, one to 334 days and another 390 days from a cause I would say was not true fetal gigantism. When delivered, both calves were similar, as I will describe later.

Case History

The 390-day case was a recent one in my own herd at Pleasant Valley Farm. The cow was a five-year-old Holstein with the barn name Gail, weighing about 1650 pounds, and of better-than-average type, but under the herd average in production. She had been bred November 2, 1969, on a normal heat after being fresh 85 days. She was checked pregnant at thirty days and the due date marked down as August 12, 1970.

In January, an undiagnosed virus . . . causing diarrhea, some abortions and some fertility problems . . . went through the herd. In February, Gail had a clear mucous discharge for two days and it was presumed she had aborted.

However, a pregnancy check showed her to be still pregnant and seemingly normal. In early June, her production was down to where she dried off with no problem. Her year's production was just over 13,000 pounds of 4.2 milk which, considering the diarrhea in January, was normal for her. Had she not been due in August, she certainly would have been considered for culling.

We turn dry cows in summer to a separate pasture where they get some silage and grain. Milkers are pastured nights and kept in days. This particular cow fleshed up far more than the rest of the dry cows, was obviously carrying a large calf, but did not bag when she should have.

An examination in mid-August revealed that she was pregnant and the calf alive. All sorts of doubts began to come up. There was no bull on the farm, or anywhere near by, so we questioned the inseminator if he had a record of having bred her later than November 2, 1969. There was no record with the inseminator, and none on our barn sheets, yet we doubted ourselves and each other.

This cow was obviously pregnant, but we felt sure there had to be a later breeding date. The inseminator even promised that when the cow calved he would pay for blood typing to identify the sire.

Weeks went by, and the only one unconcerned was the cow. My own reaction was that I wished I had

(Continued on next page)



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had enough sense to beef her back in June when she dried off and the beef price was high. In early November, we no longer saw the calf move, but she did start to bag a little. By November 16, she appeared to be ready to calve soon, but not that day . . . always a day or two off.

On the morning of November 27, Gail was dripping milk from all four quarters and we thought, "Today is the day; now we will find out what she was bred to." In fact, it was so near nine months from when she was noted with a discharge in February that we assured ourselves that she must have been bred then, and no one wrote it down.

Not Yet

That evening, I stopped at the barn to give another cow calcium, expecting that Gail would have calved. Instead, she stood there chewing her cud with no indication anything was wrong except that her tail was carried out just a bit.

This was my farm partner's bowling night and he was going to check her when he came back. I had told my wife I would be at the barn only long enough to give one cow calcium and then be home to meet some guests, but a cow with symptoms of this one could have a torsion and ought to be checked.

It took only five minutes to tie the cow's tail, wash her up and start to examine her. It took only a few seconds of examination to know that I was in for at least an hour, and perhaps longer, of hard work. The water bag had not yet broken and was thick and heavy. Through the water bag, I could feel an obviously dead calf.

After breaking the water bag (which was filled with a huge amount of dark-brown fluid), I got hold of the feet. Each hoof was the size of a three-month-old calf. The teeth on the calf felt huge, but the hair was not the long, heavy kind as found in true fetal gigantism.

As large as this dead calf felt, I estimated I could . . . with a little manipulation . . . get it through the pelvis. After a few minutes, I began wondering about a Caesarian, but I have always thought that a Caesarian on cows with calves dead as long as this one is more of a gamble than other methods of assisting a delivery.

Some Help

My helper was one of my daughters, whom I have always found were my secret weapons when it came to lambing cases, and even on a calving or foaling case they're good to have around. That night Meg brought clean bedding, fresh water, got the calf puller from the car and even brought a handful of lime and put it on the puller-jack when it began to slip.

It was necessary to pull the head into the pelvis, then one leg at a time since the legs were so short that they blocked the passage of the head. I knew by this time that I had a "bulldog" calf, and was concerned

Puddle ducks, such as mallards, blacks and teal, rise almost vertically when taking off from the water. Diving ducks, such as scaup, merganser and canvas-back, seem to run on the water to get airborne.

about the size of its abdomen since many of these calves have dropsy.

My fears were unwarranted, though, because the head and shoulders were the main obstacle. Once they came through, the rest was in proportion. It was the biggest bulldog calf I have ever seen, weighing over 160 pounds, but because the cow had an extremely large pelvis, delivery was possible.

Happy Ending

As soon as the calf was out, I gave Gail some oxytocin, offered her warm water, and . . . while she was resting . . . I decided to phone the inseminator because he was so concerned as to how he could have forgotten to record a breeding date. The next morning, he took a picture

of the calf for the records of the insemination organization, but I am sure he slept better that night knowing the reason Gail did not calve in August was nature's mistake and not his.

By the time I had completed the phone call, the cow was on her feet eating hay as though nothing had happened. Though I have helped cows deliver for many years, I am still amazed at the strength of the Holstein cow, the afflictions she can take and still get up and go on with no evidence of what she went through. Gail **did** take some individual care, along with antibiotics and hormones for a few days, but after two weeks looked no different than any other cow that had calved.

Besides the short legs and typical

bulldog head, the calf had no hair from his ribs on back. I would guess that he had died four weeks previous to delivery when the cow started to bag.

As long as men take care of cows, this sort of thing is going to happen. On the family farm, at least, whoever is looking after the cows is going to try to keep them not only alive but in production. As long as men take care of cows, women are going to be kept waiting with little more excuse than, "I'm sorry I'm late, but a cow needed a little help and . . ." As long as women are foolish enough to marry cowmen, there will be family farms.

When there are no longer family farms, this world will be sad and hungry!

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BOYCOTT THREAT

by Amos Kirby
New Jersey Editor

LOOKING ahead into 1971, the threat of boycotts at supermarkets just might be the biggest and most uncertain factor to influence planting operations.

Harvest-worker strikes may be conducted in lettuce fields and vineyards in California, but the boycotts are staged in any town, city, or even country market. The lettuce boycott in the Philadelphia area last December was an illustration of what might happen to any of a score or more of perishable crops in the future.

The boycott ball is carried by young men and women employed by the unions, who descend on a store selling a product that does not carry the union label. They distribute literature, carry signs and intimidate customers.

Consumers for the most part are not interested in the boycott, and care little if the lettuce is packed in containers that carry the union label. But when they see the sign-carriers, they get back in their cars and go to a market that is not being picketed.

One large chain operating in the Philadelphia area has had 26 stores picketed. During an interview with a top official of this chain, he told me that... while he cannot notice any substantial loss in sales at those stores... he is concerned about the ill will that boycott activity creates.

While there is little likelihood that there will be any strikes or boycotts of eastern-produced perishables in 1971, the boycott threat can create uncertainty.

DO FERTILIZERS POLLUTE?

Dr. Warren Battle, chairman of the Department of Soils and Crops at Rutgers, reports that there is a very limited chance that fertilizers pollute streams.

He points out that the phosphates used in detergents, while originating from the same phosphate used in fertilizers, have been changed in chemical composition in a way that actually makes them different. This authority points out that fertilizers applied to the soil are usually mixed with the soil, and phosphates quickly become fixed to the soil particles and can be used only by the roots of growing plants.

It requires a long time for fertilizer phosphates to get into streams... unless washed by heavy rains before they are mixed with the soil. Nitrogenous fertilizers also follow a complicated path in order to reach flowing streams.

In the case of phosphates in detergents, they are dumped immediately after use into sewers or other water channels, and become an "instant pollutant."

Specialists at the New Jersey College of Agriculture and Environmental Sciences have conducted extensive and complicated soil tests on plant-food runoff, and their conclusions indicate that fertilizers con-

tribute little to the pollution problem.

Tests conducted at the University of Delaware confirm the results in New Jersey.

EXPORT MARKET

The New Jersey Department of Agriculture reports that Garden State growers sold in 1970 over \$2 million worth of fruits and vegetables in markets outside of the United States.

Canada was the big market, with sales to that country in excess of \$1.7 million... peaches being the major item. Other items sold to Canada include lettuce, apples, cucumbers, cabbage, cantaloupes, onions, potatoes, tomatoes and plums.

GYPSY MOTH

Indications are that the gypsy moth may become the next serious pest moving south. After many years of being largely confined to New England, it has moved fast into New Jersey and Pennsylvania.

It has been found in 1970 in Delaware, Maryland and Virginia. The gypsy moth can be a greater pest to woodlands and suburban areas than a serious pest to general farm crops, fruits and vegetables. North Jersey has seen in 1970 the destruction of large acreages of its woodland trees. The spreading infestation is a matter of great concern.

EXPLOSIVE RESTRICTIONS

Look for tighter federal restrictions on the use of explosives. This will also apply to those who may be using explosives on farms. The new rules will provide for the licensing of those who will be permitted to use them. It also provides for approved storage of the explosives, and strict regulations of those who sell and distribute them.

The materials to come under regulations include dynamite and other high explosives... including black powder in amounts over five pounds.

The law exempts small-arms ammunition and smokeless powder designed for small-arms use by sportsmen who reload their own ammunition.

FARMS INCORPORATE?

The long-term increase in land prices, combined with larger farm operations and the problem of inheritance taxes, make it imperative that farmers reexamine the advantages of adopting some form of corporation. The incorporation of a farm, with the issuing of stock to sons and other members of the family, can help protect the interests of all involved and at the same time reduce the inheritance taxes.

FARM LABOR BOARD

The Peninsula Horticultural Society, at its last annual meeting, recommended the appointment of a

Farm Labor Relations Board to avoid costly strikes and boycotts, especially dangerous in the harvesting of perishable crops.

The Board would protect both consumers and producers, handle unfair labor practices and conduct the elections of bargaining units.

BLIGHTED CORN

One need not be concerned over the use of blighted corn in poultry rations. The blight may have hindered the growth and maturity of the corn plants, resulting in corn of lower nutritional value. Since corn is primarily a source of energy, adjustment for that damage may be made by using a bit more corn in the ration.

A more serious problem can be the hazard from molds that may flourish in corn affected by the leaf blight. If corn has been properly handled and stored, however, there will be little possibility of secondary mold development.

INSULATION INFO

RIGID urethane foam is the only building insulation material reported to be available in all these forms: ready-to-use boardstock, factory-made building panels, or a liquid that can be poured, frothed or sprayed on the surface or in the cavity to be insulated. Installed as a liquid, urethane foam expands to fill all crevices, forming an unbroken seal that blocks heat leaks.

A major advantage of urethane foam boardstock is that it can be installed by semi-skilled carpenters; no special tools are required. The lightweight panels come in thicknesses of 1/2" to 3", and in large sizes, up to 4' by 16'. An inch of urethane is equivalent in insulating value to 4.3 inches of vermiculite.

Rigid urethane foam can be used to insulate walls, ceilings, roofing, floors, perimeters, pipes and tanks. It can be used in any kind of construction... metal, masonry, concrete or wood. Used on the exterior of a building, sprayed-on-urethane should be coated or enclosed.

Further information on the use of rigid urethane foam can be obtained from Section AA, Foam Chemicals Dept., Mobay Chemical Co., Penn Lincoln Parkway West, Pittsburgh, Pennsylvania 15205.

COMPACT TRACTORS

Homeowners thinking of buying a compact tractor... sometimes known as a garden tractor, and usually from 7 to 14 horsepower... would do well to first send for a copy of Cornell Agricultural Engineering Extension Bulletin 392, entitled "Compact Tractors—Their Selection and Use."

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ECOWLOGICAL IMPROVEMENT



by Bill Quinn*

Here's how to achieve conditions favorable to the growth of top-quality herd replacements.

NURSES call it T.L.C. . . . tender loving care. They lavish it generously on the newborn charges in their maternity wards.

Many dairymen . . . those with successful calf raising programs . . . have taken a page from the nurses' notebooks. Calves, they say, are babies . . . and should be treated as such. Individual care and close personal attention are a must. Herkimer County dairyman George Demeree puts it this way: "You've got to spot trouble before it starts." Another dairyman told me, "For every minute we spend feeding our calves, we spend twice that much time just observing them."

Found Formula

Many dairymen have found a formula for successfully raising herd replacements. I visited with several of them in New York State. Not surprisingly, no two of them are doing things exactly alike, but all have hit on a pattern that works for them.

Calf raising seems like a simple-enough job, and for some dairymen it probably is. In Oneida County, for instance, Extension agent Tom Johnson cites the experience of Max and Carl Townsend who have lost only one calf in the last two years . . . and that by accidental hanging. But for all too many dairymen, calf raising becomes an ill-fated enterprise, occasionally taking on the proportions of a major calamity.

Back in the days when herds were small, when only a few calves were raised each year, calf raising was troublesome enough. But now, as herd size has been increasing arithmetically, the problems associated with calf raising seem to be increasing geometrically. A Michigan report shows an average death loss in 30-to-50-cow herds of 13.8 percent; in herds with 100 or more cows, mortality climbed to 18.4 percent.

Perhaps it's not surprising. After all, as more and more calves are raised in the same facilities, disease organisms get a chance to build up. Some dairymen . . . those whose calf

areas have been invaded by "superbugs" . . . have had calf mortality "storms" reminiscent of the abortion storms of a few decades ago.

Important Job

Successful dairymen consider replacement raising an important job, knowing that calves deserve just as much attention as the milking herd. They shouldn't be relegated to a second-place spot. "You've got to remember," said George Demeree as we stood looking over a group of his heifers, "that this is our future herd."

The objectives of a replacement-rearing program seem straightforward enough . . . keep 'em healthy, keep 'em growing, do it efficiently, and get them into the milking string as big, growthy two-year olds.

Two Jobs

Rearing replacements is usually thought of as a single job, but in actual practice it's two different jobs. The first job is to bring the calf along from birth

to about two months of age. It includes the milk feeding period and the "learn-to-eat-grain" period. It's the period when most of the mortality occurs. It's also the period that requires the most time and attention. But when it ends, the calf has been off milk for three to four weeks, should be consuming good quantities of grain and hay, and should be ready to move on to stage two.

Stage two, the second part of the job, turns the calf into a cow. The two stages are no more alike than plowing sod is like planting corn. The problems are different . . . in the calf, health and mortality are foremost . . . in the heifer, growth considerations are of primary importance. In both cases, efficiency of feeding, handling and cleaning take on increasing importance the larger the herd becomes.

Because of this, I made it a point to talk with men who are raising fairly large numbers of calves . . . 30 to 50 or more.

Stage One

This article reports on stage one . . . how these men handle their calves for the first two months. In the next article, we'll take a look at how they grow out these calves to milking age.

While their calf programs varied, all the good calf growers I visited shared some things in common. Here are ten "rules for good calf rearing," drawn from talking with them:

Care of the calf starts before it's born.

A filthy box stall in a corner of the barn is not the kind of place for a cow to give birth. Unless it's thoroughly clean and well disinfected, it can be loaded with disease organisms . . . a

veritable cesspool of infection.

Otis Young, Jr. of East Homer in Cortland County, who will start about 30 calves this year, has a maternity pen, but breaks the chain of "bug" buildup by using alternate facilities. "Weather permitting," Otis comments, "we let them calve on pasture. Sometimes we let them freshen in the stanchion line. We use plenty of bedding, then jam a couple of bales of straw in the drop behind them." Rotation of the calving site is particularly appropriate if disease-trouble strikes.

Stanley Weddle of Homer uses a large, well-bedded pen. "When she appears to be close-up we like to put her where we can watch her," he says. Apparently it helps . . . Stanley's 95 Holsteins average well above 17,000 pounds of milk and 600 pounds of fat.

Get colostrum in the calf right away.

Baby calves are born with little or no protection against disease, but nature has taken care of this. The cow herself has the means to protect the calf, in the form of her first milk . . . colostrum.

Colostrum is loaded with all kinds of goodies . . . vitamins, proteins, and especially antibodies that arm the calf against disease. But the calf's ability to absorb that "armor" decreases by the hour. By 12 hours after birth, if the calf has not nursed, nearly half of the possible protection has been forfeited. Dr. Francis Fox, Cornell veterinarian, goes even further . . . he'd like to see the calf get some colostrum within 15 minutes after birth!

(Continued on page 16)



These calf stalls are made of wood; slats form part of floor, and front part is solid. Ronald Space of McLean, New York, built these.



Expanded metal floor of stall keeps calf dry. Individual stalls are preferred to pens at this age.

*Extension Agent, Onondaga County, New York



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(Continued from page 14)

Cliff Collins and Sons of Blossvale in Oneida County, who raise about 100 calves a year on their two farms, stress the importance of early colostrum feeding; they feed it from nipple bottles. It may be a good idea to hand-feed the colostrum, about 2 or 2½ pounds in a clean pail, particularly if a calf appears too weak to nurse. At least you'll know she gets it, and it may prevent overfeeding.

Excess colostrum can be frozen and stored for later use when needed. Since it contains twice the solids of normal milk, first-day colostrum should be cut two

to one with water when used for normal calf feeding.

Dip the navel cord to avoid infections.

The navel cord is an entry-gate for disease organisms. Shut that gate with a germicidal seal. George Demeree, like many dairymen, favors tincture of iodine for that purpose.

Avoid stress conditions.

"The surest way to kill a calf," says Cortland County dairyman Otis Young, "is to let it get wet, then put it in a draft." What Otis is talking about is sometimes called "stress."

Stress takes many forms . . . drafts, dampness, dirtiness, over-

crowding, overfeeding, chilling, rough handling, humid and poorly ventilated quarters, abrupt changes in diet or temperature . . . you name it. Calves, like babies, respond favorably to care and kindness, not to stress!

Some losses in calf rearing are probably inevitable, but a goal of not more than two to three percent mortality is realistic.

Provide adequate housing.

Dairymen have built, and are building, special quarters for calves. In Tioga County, Bob Moore of Nichols recently built a new 17'×60' barn to house calves from birth to 10-12 months of age. The new barn is con-

nected to Bob's present cow barn and utilizes a gutter cleaner for manure disposal.

The Townsends of Oneida County built environmentally-controlled calf quarters attached to their 80-cow dairy barn. A thermostatically-controlled electric heater helps maintain a constant temperature. Otsego County dairymen have admired the new calf barn built by Pete Huntington of Cooperstown.

Down along the west side of the Hudson River in Dutchess County, dairyman Henderson Honour has been using his special calf facilities with outstanding results; Extension agent Don Rogers says he's lost only two calves in seven years. Carlos Page, whose 150 registered Holsteins are among Genesee County's top herds, has designed a unit in his free-stall barn to house calves from birth to five months of age. Manure from this unit goes into the dairy barn's liquid manure tank.

In Montgomery County at Fonda, Warren Jaffe has built a rather unique calf barn addition. Droppings fall through a slatted floor to a shallow manure pit below. In Cayuga County, Keith Hatfield made his calf facilities an integral part of his new free-stall barn.

The kind of quarters can vary considerably . . . all the way from completely insulated, environmentally-controlled units to the completely unheated kind. If drafts are eliminated, a calf can take plenty of cold, but the temperature should be constant.

Cliff Collins emphasizes the problems of housing calves in the milking barn, pointing out that temperature drops abruptly when the herd is let outdoors in the wintertime. In cold quarters, if heat lamps are used to dry a calf after birth, a gradual reduction in temperature should be planned.

"Individualize" your calf care.

This may be the age of group dynamics . . . but not for baby calves. They are individuals and deserve individual attention. Ideally, calves should be started separately, rather than grouped in pens. Dairymen like George Demeree and Otis Young use individual elevated stalls for the first two or three months. The stalls have solid plywood partitions, and a solid floor with slats under the rear feet.

Otis built 11 of the stalls, each 2'×4' with 1-inch white oak slats, for between \$125 and \$150. George purchased his stall units from an East Worcester concern several years ago for \$8 a stall. They came in units of four ready for easy assembly.

Commercial stalls with expanded metal floors are also available. All should have a place for water, hay and grain. Penn State University, by its Plan Number 723-215, provides construction details of an elevated calf tie stall. Dairymen who do not have individual stalls should either tie the calves, or use a pen



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with headlocks, to restrain calves after feeding . . . in order to discourage sucking of ears, tails, navels and udder.

Build a "gap" in the infection cycle.

"Rotate and rest" is not a bad motto for the calf quarters, as well as the maternity pen. Cliff Collins does just that. He uses some alternate facilities for his baby calves during the summer months, never bringing them in to their usual quarters. This provides a break in the bug buildup. Otis Young, on the other hand, has "extra" stalls, so that part of them are periodically rested.

Cleaning and disinfecting go hand in hand with rest and rotation. Lye or other disinfectants, a steam jenny if possible, can help break the infection cycle and get rid of bugs left by former occupants. It's a good idea to build the stalls (also calf barn doors) so that they can be easily moved out and exposed to the sun and the rain.

If the bugs get hot enough, numerous enough, resistant enough, and deadly enough so that treatment is to no avail, then the best thing is to pick a new place. There are plenty of places around. After all, calves have been raised outdoors in little hutches during the dead of winter . . . with almost no mortality.

Use antibiotics as a prevention or cure, but not as a substitute for good management.

Scours, pneumonia and septicemia are not uncommon in calves, so antibiotics serve a worthy cause. George Demeree gives a 30-cc shot of serum as recommended by his vet to every calf he plans to raise. Cliff Collins injects penicillin and vitamins after birth . . . but only during the winter season. At other times he, like Stanley Weddle, uses antibiotic boluses only when trouble appears to loom.

Many milk replacers, of course, contain low levels of antibiotics. Some veterinarians criticize feeding low levels, believing it may permit the development of resistant organisms.

Dr. Bruce Haynes, Cornell Extension veterinarian, and Dr. Sam Slack, Cornell animal nutritionist, both suggest checking calf temperature daily. If over 103 degrees, start treatment immediately.

Feed wisely and well (but not too well).

Whether to use milk or milk replacer . . . this is a question only the individual dairyman can answer. Because some dairymen, including Stanley Weddle, like to see their calves good and sleek, they use more milk than do some others. Whether calves are fed milk or milk replacer, it should be possible to wean them as early as a month of age if they're thrifty and eating about 1½ pounds of grain. They don't need to be tapered off; they can be weaned abruptly.

George Demeree is embarking
American Agriculturist, February, 1971

on a new feeding program. He's continuing once-a-day feeding of milk replacer for an extra month to see if he can get a growth spurt that will help him reach his goal of heavier weights at two years of age.

Overfeeding invites stomach upsets and scours. So if in doubt, it's better to keep the calves a little on the hungry side. For the sake of simplicity, a constant amount can be fed each time. If milk is used, feeding 3½ to 4 pounds twice a day from the 4th to the 30th day (for Holsteins and Swiss) should do the job. If using replacers, follow the label directions.

Small weight differences at one month are quickly erased

with time. If adequate energy is provided later, it's hard to find the difference by the time the animal is three or four months of age. Grain, hay and water can be introduced about a week after birth. But if a calf starts eating hay to the exclusion of grain, take it away or restrict it . . . she needs the energy provided by the concentrate.

Take some time just for observation.

The "eye of the master fattens his cattle," and it can also help raise good calves. A drooped ear, a dry muzzle, coated eyes, or loose bowels can be the tip-off that something is wrong. Although the basic ingredients of

a calf raising program are fairly simple, it's that extra attention that keeps a guy out of trouble. Some dairymen raise calves in cramped and inadequate quarters . . . but with beautiful results . . . all because of some extra attention.

There are other little management jobs that good calf raisers perform during this first eight-week period . . . dehorning, removing extra teats, registration, perhaps freeze branding for identification.

Next time, I'll report on how several dairymen are doing the second part of the heifer growing job . . . taking those healthy, thrifty calves and growing them out to working age.

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What's NEW in the FIELD

by W. D. Pardee*



FOR sure, "no-plow" corn is controversial. Some assure us it's the coming way to plant corn, others say it's a passing fad. Certainly no one has all the answers, but solid facts are beginning to emerge from the confusion. I've visited with Cornell agronomists and others to pull together pointers to help you in considering this practice. Here's a run-down on the facts as we see them.

First, what is "no-plow" corn? We use this term to describe the practice of planting corn without plowing or harrowing, using herbicides to kill existing grasses and weeds. This may mean planting directly into a sod, or in corn stubble or stalks from last year. Crop residues remain on the surface. Weed control efforts are restricted to herbicides.

Several Makes

Several planter makes on the market feature a fluted coulter that tills a band 2½ inches wide and ¾ inches deep for the seed. Others have a rolling spiked wheel or other mechanisms to prepare a narrow tilled band for planting without disturbing the area between the rows.

Some call this "zero tillage" or "no-till." The name doesn't matter. We're referring to planting corn without tilling the soil, except for a 2½ inch band right where the seed is to be placed.

There are some real advantages for no-plow planting. For one thing, you save time. With "no-plow," you can plant your corn early and be done before your plowing neighbors are through plowing. And early planting gets your corn off to an earlier start, bringing higher yields.

Wet Soil

You can plant in soil that's too wet to plow. We've known farmers who got their planting done while the neighbors' plows were sitting in the barn waiting for the ground to dry. And with firmer ground, you can harvest in wetter weather. This won't help you every year, but can be a factor in wet seasons.

Another plus is the ability to plant corn on soils too stony for plowing. This can save on rock picking or broken plow points. It can also help on otherwise good soils that are "standing on edge," and bring more sloping land into the cropping program.

In yield, "no-plow" corn can equal conventionally-planted corn . . . provided you do everything right! Yields can be the same or higher on well-drained soils, come darn close on heavier clay soils.

No-plow can reduce erosion. Crop

residues and manure on the surface help hold back water, reducing run-off. Some tests show water run-off from no-plow soil only 1/6 of that from normally tilled land.

No-plow is also versatile. You can plant no-till corn in stubble or stover from last year's corn crop. You can sow in a small grain cover crop such as rye. Or you can plant directly into a grass sod.

Herbicide research is moving fast, but it's still the critical area in no-plow corn. Getting the right chemicals on at the right time is a must, or you're flirting with failure! On sod, most recommendations call for a mix of atrazine plus paraquat to kill existing sod and grassy weeds. This should be sprayed on before or at planting time. Frequently, you'll need to follow up with 2,4-D as a post-emergency spray to control alfalfa and dandelion . . . two tough species that atrazine and paraquat won't kill.

In corn stalks or stubble, use atrazine and Lasso pre-emergence. Be ready to hit broadleaf weeds with 2,4-D if they come on.

One disadvantage of "no-plow" is that you cannot incorporate manure, corn stalks, fertilizers, lime or herbicides into the soil. This means inefficient use of these, particularly manure and crop residues. Most nitrogen contained in these materials will be lost.

Plant residues on the soil surface create a nice home for insects, rodents, birds. Pheasants can move in on corn seed and seedlings . . . slug damage can be high in sod. And heavy corn stalks can keep herbicides from contacting the ground surface, permitting annual weeds to grow.

Disease

Right now, we're worried about disease and insect build-up where corn follows corn without plowing. Southern leaf blight and yellow leaf blight over-winter on corn debris. So far, firm evidence is skimpy that this can cause disease build-up the following year . . . and clean plowing to get all stalks under is certainly no guarantee you won't get these diseases. Still, common sense suggests that a mat of diseased corn debris on the ground offers a source for spreading infection rapidly through the field, should weather conditions turn favorable for disease spread.

The same is true with corn borer. Farmers and scientists alike have noted an increase in corn borer during the past several years in the Northeast and Midwest. Corn borers live over in corn stalks; clean plowing has long been recommended as a way to reduce risk of borer damage.

Corn borer moths fly long distances, so clean plowing won't guarantee you'll get no loss. But once again, odds are that fields littered with stalks full of overwintering borers will be in for more trouble than fields where stalks are plowed under.

In addition to corn borers, Ohio scientists note additional damage in no-till corn from wireworm, seed corn maggot, corn root worms and army worms. They urge caution until we learn more about controlling these bugs in no-plow corn.

We'll learn lots more during the next several years. Leaf blight, corn insects and "no-plow" corn are all with us, so we'll have plenty of chances to compare.

Of course, the risks above occur only in corn stalks. They're not present where corn is planted in sod or in a winter cover crop. Even in corn silage stubble, these risks would be reduced.

Another drawback. Untilled soils warm up slower in the spring than those that are plowed. And no-plow corn fields are no exception. Corn starts more slowly in cold soils. Fact is, slower growth may account for more noticeable insect damage.

Pointers

If you're thinking of no-till corn, here are some pointers. First, the planter. Before purchasing one, see it in operation to be sure it works, gives you sufficient penetration, and covers your corn. And be sure it plants well in conventionally-plowed ground.

Fluted coulters do an excellent job of cutting up trash, providing the coulters are sharp. They do best on sandy or loamy soils. In heavy clays, particularly when the soil is wet, the coulters frequently do not till the soil, but merely leave a wiggly slit.

Both planters and fertilizer attachments should have double-disc openers. For the fertilizer openers, at least one manufacturer offers an optional 18-inch double-disc fertilizer opener to replace his standard 13-inch opener. We favor the 18-inch opener because this permits placement of fertilizer several inches deep into the soil.

Check the fertilizer drive mechanism. Some farmers have found this causing trouble, if the planter frequently rides high enough to reduce traction on the drive wheel. We've seen oversize snow tires on the fertilizer drive wheels providing good traction.

Readjust

When moving from conventionally plowed soil to unplowed ground, or from sod to stubble, be sure to readjust your planting depth . . . otherwise you'll leave seed on the surface, handy for pheasants. Set your planting depth at 1½ to 2 inches. Try it out, and then keep an eye on it until you are sure that this is the depth you are getting.

A convex packer wheel with a V-fitting down into the slot left by the opener is far better in firming soil around the seed than the conventional concave packer wheel.

You may find you need additional weight to get the planter into the ground, particularly if the ground is hard. This can be tractor wheel

weights, railroad iron, or anything heavy. Water tanks are particularly good because this makes it easy to add or take away weight without lifting, by merely filling or emptying your tanks. We've seen spray tanks used, but these lighten as you spray. Fertilizer application is less troublesome than we feared. Surface applications of fertilizer seem to do the job. Plant roots feed near the surface in a no-till situation because the plant materials provide a mulch over the ground surface and it remains more moist than otherwise.

You can spread phosphorus and potassium on the soil surface, then put on a balanced fertilizer with a planter. Additional nitrogen can be applied as sidedressing.

Sometimes, corn stalks cause problems in sidedressing anhydrous. Stalks tend to catch and build up on applicator knives. When these are raised to remove stalks, you get anhydrous burn to neighboring plants. Losses aren't great, but they're annoying.

Whither "No-Plow"

So what does it all add up to? Personally, I believe farmers should be very cautious about moving into "no-plow." Fred Swader, soils specialist at Cornell, emphasizes that it is an "unforgiving system."

In normally-tilled soils, you can make minor mistakes . . . yet still come through with a reasonable corn crop. Not so with no-plow corn. If you don't get weed control, you don't get a stand! If you don't get a stand, you don't get a crop!

No-plow may hold most promise as an optional planting method. Depending on the make, no-plow planters cost little more than normal corn planters, and can also be used in soils conventionally plowed and tilled. When you buy your next corn planter, you might consider purchasing a "no-plow" planter for normal planting use. Then in wet springs or on hill land, you can plant when you otherwise might not.

Right now, we're watching the relationship between disease and insect build-up in continuous no-till corn. We're concerned, but we aren't sure what we'll find. Past experience and logic suggest that we keep a close eye on this and be cautious about throwing away our plows.

One additional note. No-plow corn, with its complete use of herbicides and insecticides, is the ultimate in the use of pesticides in corn growing. And looking ahead, we worry about continued pressure on pesticide use. Federal and state regulations have removed several useful chemicals from our bag . . . 2,4-D itself has been questioned. Others are being scrutinized carefully by ecologists and legislators.

We have no desire to use chemicals harmful to our environment. But recent decisions to remove chemicals have often been based on political values rather than on scientific fact. This means most chemicals we use are vulnerable to "scare" newspaper headlines. So we may want to keep our concepts of crop rotation and plowing viable as methods of controlling insects, diseases and weeds. No-plow, the end word in chemical pest control, may be in conflict with our modern ecology movement.

American Agriculturist, February, 1971

*Department of Plant Breeding and Agronomy, New York State College of Agriculture at Cornell University, Ithaca, New York.

Food For The Spirit



by Robert L. Clingan

YOU HAVE THE TIME

Malcolm X, the black militant, was as effective as he was because of his avid use of every minute of his day. When he was released from prison, he was able to begin his new life with three cheap but new things . . . eyeglasses, a watch, and a suitcase.

In his autobiography, he said that these three things could be considered marks of his new life. The suitcase stood for traveling, of which he did a great deal. His eyeglasses stood for his constant reading of any material that had any bearing on religion or race. The watch stood for a highly organized life in which he made every minute count.

He would never allow even a ten-minute interval at an airport to be wasted and not spent in reading something that had a bearing on his cause.

Constructive Goals

Surely if a man devoted to inflammatory speeches and the communication of hate could

feel impelled to use his time wisely and fully, how much more should people whose lives are devoted to constructive goals for society use their time well!

Time is meant to be used. How we use it will naturally depend on our situation and opportunities. A man in the prime of his life must devote the major portion of his time to his vocation. A wife and mother must use the major time segment of her endless day to fulfilling her role and using wisely the time that belongs to both herself and her family.

Beyond the major thrusts of our time-marked lives are fringes of time that can be used constructively, or destructively, or

simply allowed to become eroded with wasteful non-use. Just as the fringe on an afghan may do much to enrich its beauty and bring out its colors and patterns, so can the fringe-time segment of our lives be most enriching.

Time Redeemed

When the Bible speaks of "redeeming thy time," it is referring to the use of that "edge of time," where we are free to make our choices and do what we will.

It is in this "fringe of time" that most of the work of voluntary agencies, including the churches, is done. With this margin of time people are able to beautify their homes and landscape their grounds. This is the

time when relaxed and meaningful communication between members of a family may take place.

It is within this time portion of their lives that people are able to explore subjects unrelated to their vocational lives, develop their minds, and enrich their living. In this "unblocked time," they can develop creative hobbies in their younger years that will serve them well in their retirement. The retired person has more of this kind of time than anyone else, and blessed is he who has learned to use it creatively.

How well do you use the hours of your day and the minutes of your hours?

A young partnership

When it's time to transfer this farm from one generation to the next, you can be sure Farm Credit Service will be helping out. Advice on . . . planning, corporation programming, partnership arrangements are only a few of the **extras** you can count on from your Farm Credit representative. Successful farmers know they can depend on us for advice and help in any farm-business situation. And so can you, at any age.

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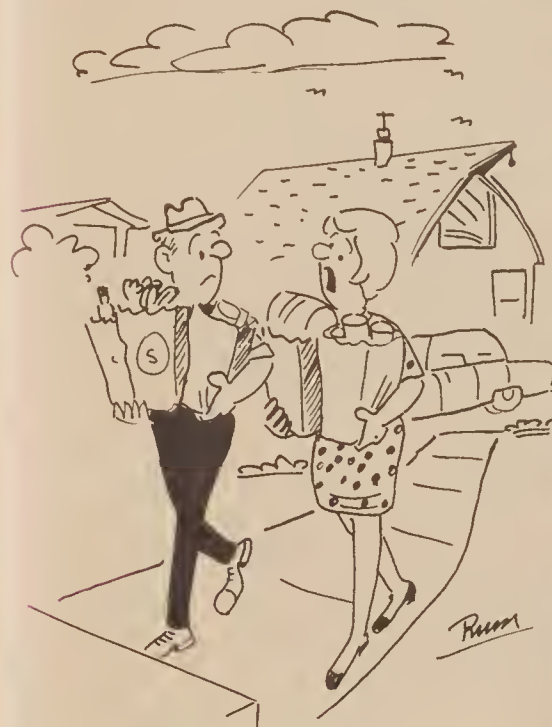


RETAILERS DAY

Garden center personnel, nurserymen, and others interested in learning more about the advertising and promotional aspect of horticulture are invited to attend the Regional Lawn and Garden Retailers Day at the Half-Way House, Darien, Connecticut on February 18, 1971.

The one-day educational program . . . from 9 a.m. to 5 p.m., rain or shine . . . is sponsored by the Extension Services of the University of Connecticut and New York State.

A registration fee of \$10 per person will include lunch, coffee, and other conference expenses. Preregister before February 10 or there'll be an additional \$2 charge. Make checks payable to Jan L. Jansen and mail to: Orange County Cooperative Extension, 239-283 Wisner Avenue, Middletown, New York 10940.



"Maybe we should buy less at a time. The sales tax on this was \$3.79."

FIRST CLASS MAIL



TAX TROUBLE

After reading your editorial comment about taxes in New Hampshire, it appears that you were a bit premature in your enthusiastic endorsement of "no less a person than Granite State Governor Walter Peterson" and his business-profits tax.

The first returns of that new tax are in and it is yielding approximately 30 percent of what our "experts" promised.

The State has promised to reimburse the cities and towns for the loss of those "antiquated taxes" and as of this writing no one knows where the money is coming from, if it comes.

If you were more familiar with conditions as they really are in New Hampshire instead of viewing us from some three hundred miles away, you might discover that those lowly stud horses and jackasses are more dependable than our liberal, spendthrift politicians who have proved their incompetence with the enactment of the business-profits tax.—*Richard L. Bradley, Woodstock, New Hampshire.*

FARMLAND ASSESSMENT

We have as yet no conclusive research that clearly identifies the effectiveness of our New Jersey Farmland Assessment program in keeping prime farmland in agriculture. Ours is a voluntary program, in which the landowner may always sell when circumstances (or the price offered for the land) becomes sufficiently attractive.

However, because the assessment is stabilized at an agricultural value, the landowner is not forced by tax pressure to sell, and may therefore hold the land for a substantially longer period and even bargain for a higher price. Further, potential landowners (non-farmer types) may be willing to purchase farmland for some distant future use and they may keep it at a modest assessed level so long as it remains in agricultural use.

Not Going Out

Therefore, we find that although much prime farmland is changing hands, it is not necessarily going out of agricultural use. Often the working farmer who sells his farm finds it possible to rent it back from the new owner, or it is rented to nearby farmers.

It would be my viewpoint from rather continuous involvement in the field with the Farmland Assessment Act that:

1. Good farmland is remain-

ing in active farm production, and that some abandoned good farmland is being brought back in production so that it may receive the assessment benefits of our Farmland Assessment Act.

2. Working farmers are being offered good farmland by the owners at very attractive rental rates. This has increased the economic base of these working farmers and their chances of remaining in agriculture in New Jersey. Since they could not possibly afford to buy the land to expand their farm operation, this is a very positive benefit that is often not recognized.

3. Working farmers who own their land and want to continue to farm in New Jersey have been substantially encouraged by our Farmland Assessment Act. With the real estate tax benefits, they have been willing to put substantial amounts of capital back into their farming operation in the way of real estate improvements, buildings, etc. They clearly intend to stay. This, of course, has tended to stabilize the rural community and this would not have happened if it were not for our Farmland Assessment program.

4. Also, because of the Farmland Assessment Act, we have a new breed of young farmer. He owns only the necessary equipment to be an efficient corn, soybean, small grain and possibly hay farmer . . . and then he goes out and rents as much good

qualified land as he can handle. He generally will not have an interest in the buildings and improvements.

Then, using modern farming techniques, he carries out a very profitable cash crop program. Often he may have a full-time job off the farm and do his farming at night, on holidays or weekends. I know of one such farmer who is farming more than 600 acres in this manner and is doing a superior job of crop management. He is often using land which . . . previous to Farmland Assessment . . . would have been idle or vacant.

Overall, I think we have a very effective and administrable approach to farmland taxation on the urban fringe. This approach, insofar as economic conditions will allow, is keeping a maximum amount of prime farmland in agricultural use.

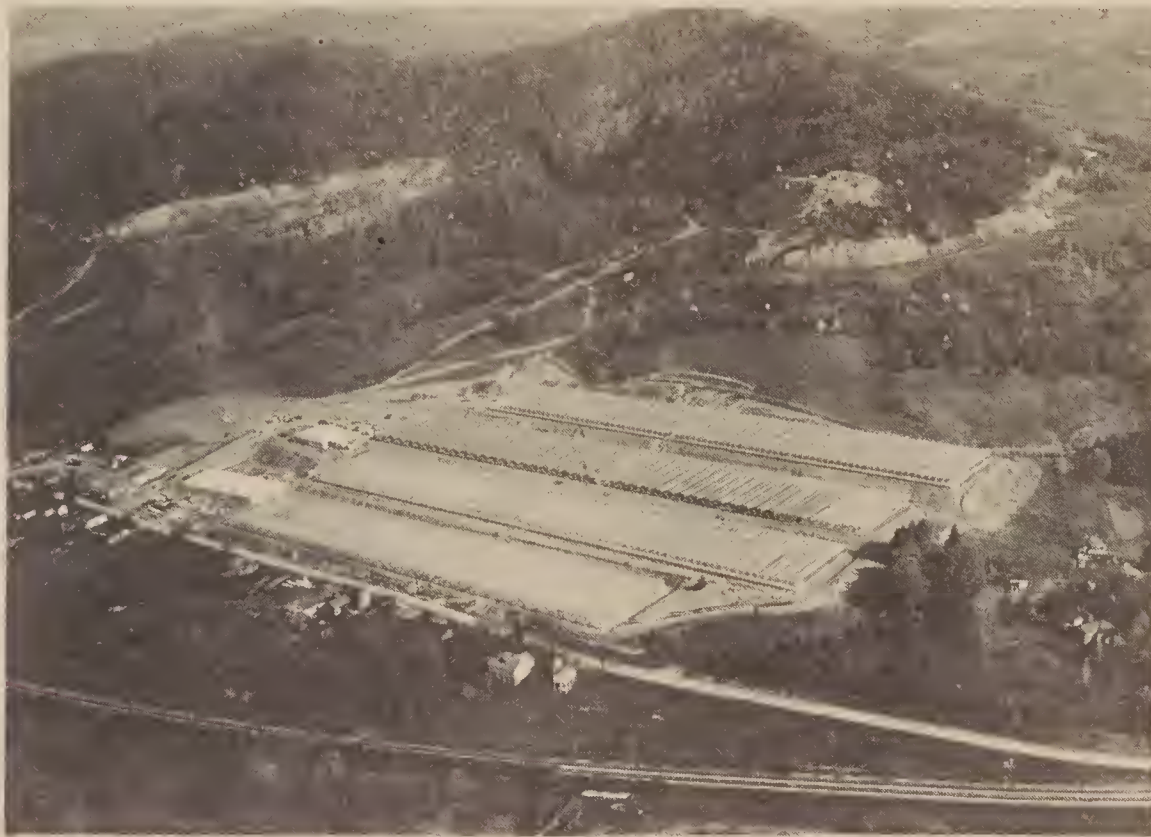
An exclusive agricultural zoning (or some other additional arrangement) would lock more land in agriculture, but I do not believe that either the farming community, or others in the state, are willing to go that far at this time — *John M. Hunter, Specialist in Agricultural Policy, Rutgers University, New Brunswick, New Jersey.*

A PLACE OF PEACE

When I find my pessimism rising to a dangerously high level, I always know where the remedy lies.

One summer evening we walked along the quiet country roads of Conewango Township. We passed the Amish farms with their red barns and dark green cornfields and beautifully arranged oat shocks, supporting in long straight rows the harvest of golden grain.

On a thousand hills the cattle



APPALACHIA BUSINESS

With four big greenhouses enclosing eleven acres under glass, West Virginia Best Corporation, Grafton, West Virginia, is growing greenhouse tomatoes and seedless cucumbers in artificial soil mix of Terra-Lite brand vermiculite, sphagnum peat moss, and plant nutrients. Eventually, as facilities expand, the company plans to supply tomatoes and other greenhouse specialties to the entire eastern seaboard market.

The organization received a \$730,000 loan from the Federal Economic Development Association, and loans from local banks. A total of \$1,500,000 has been obtained to finance this new venture.

were grazing in their usual unperturbed way, while everywhere was that wonderful sense of peace and plenty. Occasionally a buggy passed us by with a cheery wave of the hand from each of its occupants.

Anyone who knows that little Amish world as well as I is bound to feel that the human scene is still rife with goodness, even though the problems of our larger world sometimes lead us to despair. Here is a land where the human spirit can still survive. Here is an island in the midst of a savage flood, where men have established themselves safely above and beyond the flood.

It is not mine to judge how they have interpreted the Bible. I only see their lives and their handiwork, and I know them to be good. Without trying to trace their steps I know the Amish have a message to the world that is worth heeding.

They have drawn a line and put a limit on how far technology can safely go. In our larger world we are putting no limits on anything material. While we have been building pretentious schools and churches, fast motor cars, superhighways and ships to the moon, the Amish have been building character. Theirs is a culture of refinement and helpfulness.

By learning to be thankful and appreciative of God's world they have learned to be glad of heart and confident of life. Only by example do they remind us that for any man who feels too painfully the weight of technology there is always somewhere a place to rest, and a place where men have risen above the squalor of deadly competition.—*Edwin Rice, Randolph, New York.*

FIRE CONTROL

Harold Hawley's comment in a recent issue about fire extinguishers on field equipment reminded me of a safety demonstration I once saw at a field day in Iowa.

Five gallons of gasoline were "applied" to an older-model tractor. About half the gasoline was put in the tank and the other half was spashed on the hood, engine, electrical system and tires. A lighted torch was then tossed in the general direction of the tractor. At that moment, the show got the attention of the entire audience!

The demonstrator calmly moved in toward the burning tractor (as close as the heat would permit) and with a short-handled, round-pointed shovel, proceeded to extinguish the flames with loose soil. While shoveling soil, he stressed the importance of beginning at the bottom and working up.

The Procedure

A few shovels full of soil quickly extinguished the flame on the ground, then the tractor tires and finally the ignition system. The only flame remaining at that point was the burning vapor from the open gas tank which sent an angry tongue about three feet into the air. The operator

(Continued on next page)

American Agriculturist, February, 1971

(again calmly) walked over to the tractor and slowly passed his hand across the top of the tank opening. Presto! The fire was out!!

I was rather excited, I suppose, but it didn't seem to have taken more than 45 seconds to extinguish the fire. A surprisingly small amount of soil was necessary to do the job.

Fire extinguishers should be encouraged on all types of motorized farm equipment, but they should be checked occasionally. Many of them tend to lose pressure. Also, some people like to steal commercial fire extinguishers. I doubt, however, in this day and age, if anyone would steal an old round-point shovel!

One severe limitation I can see for the shovel . . . it would have been impossible to find dry soil to go with it this past fall! — *Carl Winkelblech, Cornell University, Ithaca, New York.*

this statement. His reply is likely to be, "But . . . but . . . I thought . . . that is . . ."

After you get his attention this way he often will stand still long enough so you can explain to him that a decrease in the supply of food in a country causes prices to increase more than proportionately. If all pesticides and fertilizers were outlawed, farm production in the U.S. probably would drop by at least a third.

Price Rise

As a result, prices of food would rise by more than 50 percent. Farmers would receive more money for smaller crops, and they wouldn't have the expense of buying fertilizers and pesticides. Economists explain

this by saying that the elasticity of demand for food is low, as a result, a small crop sells for more than a large one.

The critic may even be willing to listen to some more facts: "Farming is a highly-competitive industry. The first people who adopt a new technology produce so much increase and output that price falls. And it falls more than proportionately, again because of the inelastic demand for food. It falls so far that some farmers are forced out of business. Finally, production and price stabilize at levels where farmers are making no more money than they did before.

"Farmers never have formed effective unions. If they had, they would have stopped . . . or at least slowed

. . . the introduction of new technology the same as railroad workers and many city unions have done. Farmers don't like the idea of unions for themselves, but they have been doing some serious thinking lately about taking advantage of the current wave of environmental evangelism by asking Congress to roll back at least the items of new technology that are popularly associated with pollution."

I have found that most critics are pretty well sobered up by the time I finish this explanation, and are then ready to engage in a serious and meaningful discussion of the problems of pollution in agriculture! Try it next time someone jumps you about pollution!—*Howard Conklin, RD 2, Ithaca, New York.*

TALK BACK!

Has anyone ever said to you, "With all the government handouts, aren't farmers making enough money so they could stop polluting? How can we clean up the environment when farmers are trying to get rich through the use of insecticides and fertilizers?"

If no one has put you on the spot this way, just wait . . . they probably will! Large numbers of people think the only justification for fertilizers and pesticides is to increase farm incomes. They are dead wrong, of course, because the benefits from new technologies in farming are very quickly passed on to the consumer through lower prices.

But how can we answer their accusations so they will listen? They won't listen until we can get their attention.

Shocking

Here is a farmer's reply that shocks most of them enough to get their attention: "I would be happy to stop using fertilizers and pesticides tomorrow morning if you could get all the rest of the farmers in the country to do likewise, and if you could get a law passed that would make it illegal to import any products with the use of the things you call pollutants. My net income would be more than doubled if Congress would outlaw all fertilizers and pesticides and put an import embargo on foods produced with them."

It's interesting to see a critic's mouth drop open when you make



"Oh, we only farm 50 acres, but Fred's one of the biggest farmers in the county."

American Agriculturist, February, 1971

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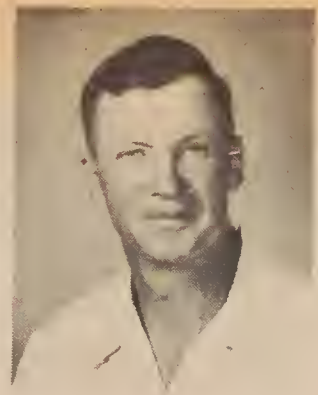
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Gayway Farm Notes

by HAROLD HAWLEY

FAR AND WIDE

I'm more and more impressed at how far from the home nest many of the current generation of farm youngsters fly. Of course, their parents sometimes get quite a way from home, courtesy of Uncle Sam or a war. Some of these youngsters may also do their traveling in a uniform but that's not what I'm talking about.

Between foreign exchange programs and Peace Corps some of our kids see a lot of this old world. Almost unnoticed are the college programs which have the students off campus part of the time and off campus seems to include anywhere else on the globe. Then there are those bright young stars who go for their education wherever the right curriculum beckons or where their interests or scholarships dictate.

A tour of graduate study provides new and different pastures. When the time comes for jobs, the sky is literally not the limit.

It is merely a reflection of the mobility of our society and the tremendous vision and ambition of some of our youngsters. It's little wonder we make progress from time to time with the interchange of ideas, cultures, and customs that are automatic by-products of all this travel.

Leaders

Just as impressive as the farm youth who travel far and wide is the quality of those who are to be the leading farmers and farm leaders of tomorrow... and tomorrow is almost here.

At various farm meetings these past several months I have been increasingly impressed at the many things these young fellows and girls have going for them. For starters, they are far better trained than their dads. They not only have a lot more formal education but also have a much broader outlook. They have been around more—to other farms and to all sorts of meetings where they have swapped ideas. They are abreast of things; in fact, already many of them are the pacesetters.

Possibly the most impressive single thing about them is how articulate they are. They can stand up and get it said clearly and well. In fact, the day has arrived when farm people will speak for farm people. It has always bothered me to have county agents or country bankers or a staff person from a farm co-op speak for farmers. Better they should speak for themselves and this has been happening much more in recent years and we "ain't seen nothing yet"!

I guess anyone who has gone into debt to be a farmer or to expand his business recognizes indebtedness as a necessary part of the game. The willingness of some of these young

couples to assume really large debts awes me a little. Also as they own and manage sizable operations, their debt-paying abilities surprise even their bankers.

All in all, one of the greatest assets our industry has is in its new personnel with their management skill, their capacity for growth and leadership, their willingness to work together through organizational channels, and their ability to present their views before any audience. All this we have had before but not in my experience have there been so many talented people on the scene.

LOW COST MEALS

Against my better judgment, I recently thumbed through a couple of leading women's magazines. An hour's exposure hardly qualifies anyone to expert on such matters but one quick reaction is inescapable.

Article after article and ad after ad help milady to escalate the level of her "needs" in terms of clothes, personal grooming items, houses and household items. All these plus recreation, too.

Cost seemingly was not the consideration unless the item was food. Here is something many of us have a passing interest in beyond the three squares a day that we mostly take for granted. So what is the pitch? Low cost meals, cheap food, etc.

I'm all for any housewife using judgment in her food purchases. It does wring me a bit though, that only in the matter of food and meals was there any apparent concern about cost. The inference was plain—food is pretty expensive and all you gals must be aware of this and try to keep the cost of feeding your family down. Meanwhile, the other things must be a bargain as no attempt was made to suggest any economies there.

Maybe it's about time the food industry persuaded some of these editors that the pitch might better be "how to feed your family better."

ADJUSTMENT

We all have our ups and downs and it's very much a part of the business we are in. However, sometimes it does seem as if things gang up on a guy. I'm thinking of some folks in the Corn Belt whose product is live hogs by the hundreds.

Hog prices took a severe beating this fall as slaughter supplies increased. This is a normal hazard of the business and one that could have been foreseen. At any rate no one is going to waste any sympathy on people in the hog business just because the normal economic forces acted to cut profits.

At the same time as hog prices were falling, so also were the pros-

(Continued on next page)

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American Agriculturist, February, 1971

pects for a big corn crop. The blight cut a third off the yield in many sections of the Corn Belt. So what happens? At the very time income is down, the corn yields drop, corn prices stiffen, and a hog feeder who normally has enough corn finds himself bidding for corn. It's enough to put a new young farmer out of business. It's also just the kind of situation to cause a reduction in hog numbers in a hurry and that industry will be healthy and profitable that much sooner.

Such ups and downs—cyclical swings — are a part of the hog business just as they are a part of the poultry business. Even the beef cattle people have the same thing to contend with only it takes a lot longer to build cattle numbers so the cycles are much longer.

Anyway, what we started out to say is that if the government doesn't get into the act to try to "stabilize" prices or prevent losses, economic forces can be depended on to bring about an adjustment. True, it's a belt-tightening, character-building experience while livestock marketings are too high and prices too low but a spell later everybody is running around with a smile on his face and a new car in his driveway.

GOOD BEHAVIOR

As this is written, great uncertainty exists regarding the snowmobile law and its enforcement. What is very certain is that on a voluntary basis, the local snowmobilers are showing some sense and restraint. We hear much less comment about gangs parading by at 2 a.m. to the annoyance of many. Also, so far, there is a different attitude about going just everywhere on just anyone's property. If these restraints continue, I predict the law will be changed and the penalties which are administered will be much less severe.

The smartest things any group can do to improve its image and avoid laws it doesn't want to live with is to have regard for others and to police its own group.

IT'S FOR THE BIRDS!

Our little village had near its four corners the first martin house I can remember. It was there for years and years. Several others have been put up around the area. Finally, this year for Christmas we got into the act.

The interesting thing about this martin bit is how dependent these wild birds have become on man. While they formerly lived and mated in holes in trees, they seem to have thrived and multiplied with the encouragement from man in the form of martin apartments.

It's a little like getting a sled for Christmas when there is no snow. We have a bird house and no tenants and won't have before spring unless we attract starlings and sparrows.

We've been really amazed to see bluejays come to sunflower heads hung in our lilac bush. Maybe it's the same three or four coming back day after day but at any rate as long as there are sunflower heads we have bluejays and almost never at

any other time. Let's hope our martin house will likewise attract martins.

SELL BY MAIL

It's been some time since anyone came to the farm to sell any farm machinery unless he was specifically invited. Especially at this time of year it used to be pretty common to have someone stop in just "to see if we needed anything." These stops were made by people representing every brand of equipment sold in our area.

Today we regularly get exposed to their wares but in a different way. Our farm magazines contain appropriate color shots of the various brands of equipment. Like as not,

there also comes a little publication from each company with additional opportunity to learn about the offerings.

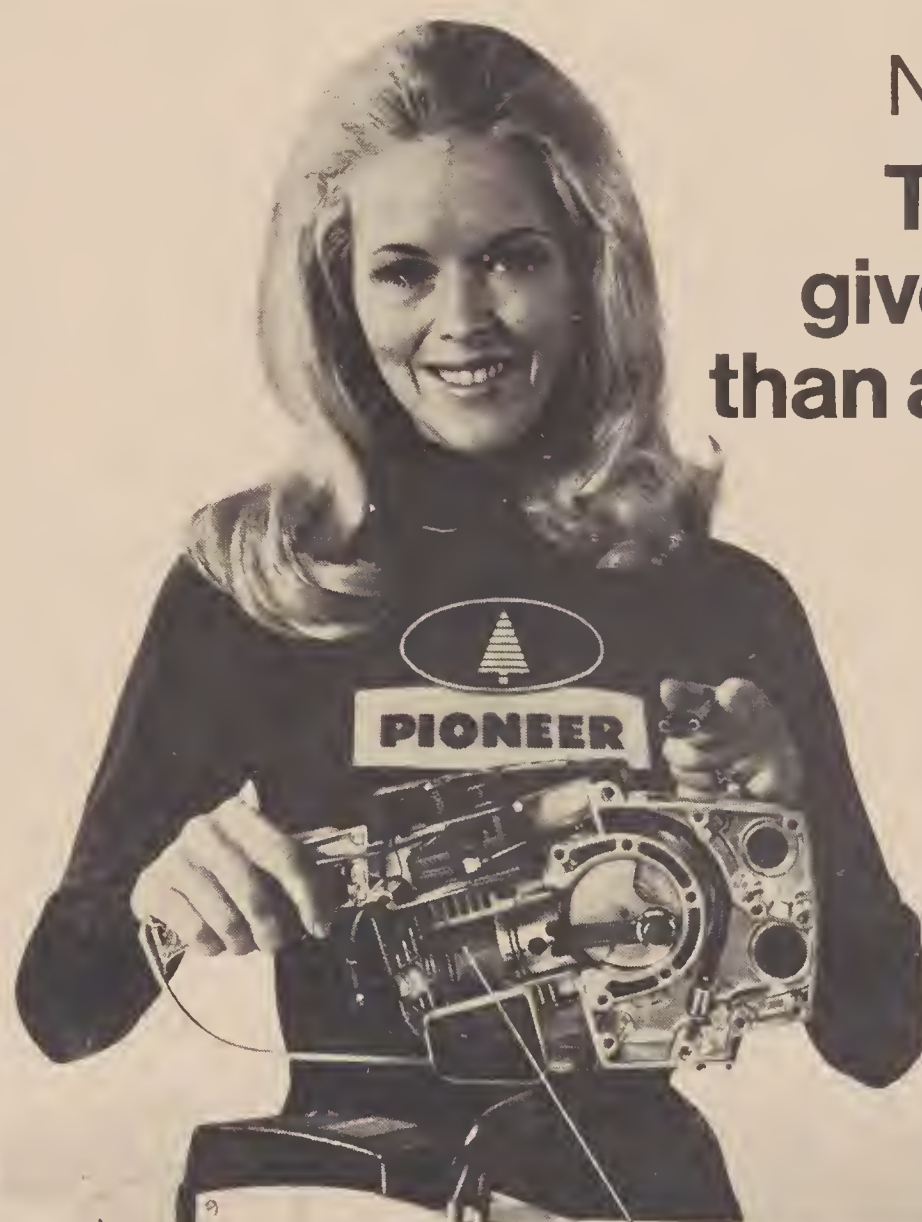
Personally we like this selling approach. Salesmen are fine and we want them when we are in the market for an item. We like the idea of comparing what's available and then giving someone a ring or going to his place of business to see the machine in the flesh and to gasp at the price tag. Usually we have someone come here so he can see what we want to trade in.

It all adds up to a better way of doing business than to have a salesman stop in just to have us keep him in mind. The only advantage of the salesman was that he sometimes got us started on the

actual buying activity sooner than we get at it by ourselves.

Timing gets to be real important if one is to avoid the frustration of having a new machine bought but not get delivered to the farm at the time it is needed. As an industry, in spite of inducements to "buy now—pay next spring" we really don't help the dealers and ourselves as much as we should.

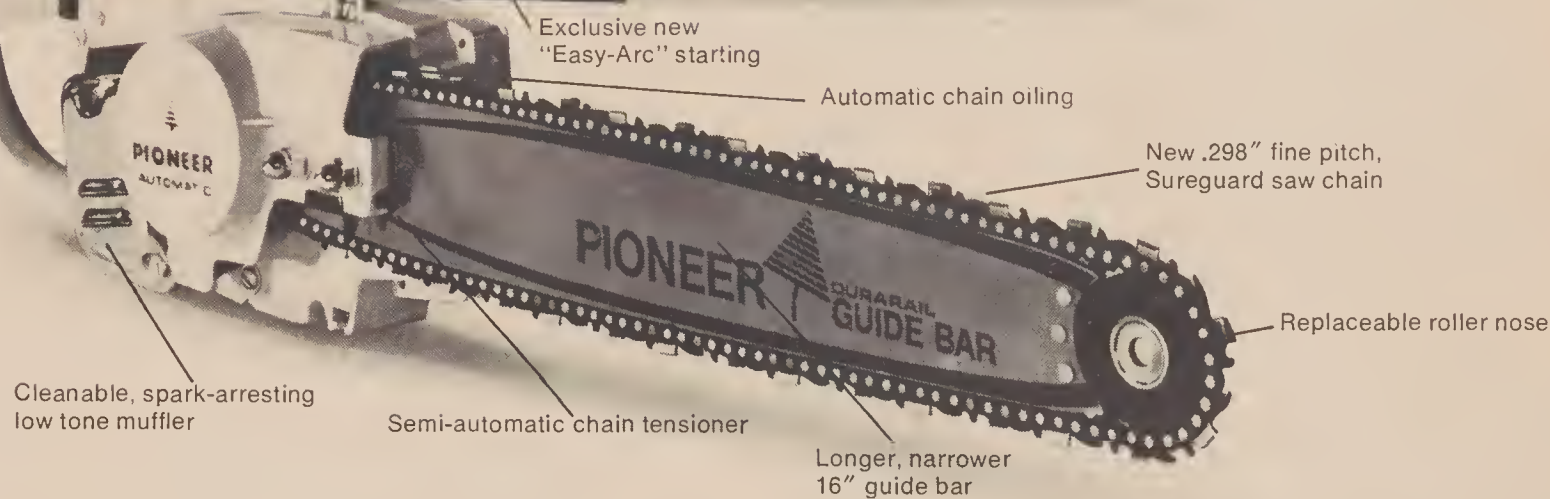
Early ordering puts one in a little stronger position to dicker for price. More important, it assures delivery on time. It's just impossible for dealers to get delivery, then set up and start all the equipment that will be sold for next spring unless a good bit of this is ordered early.



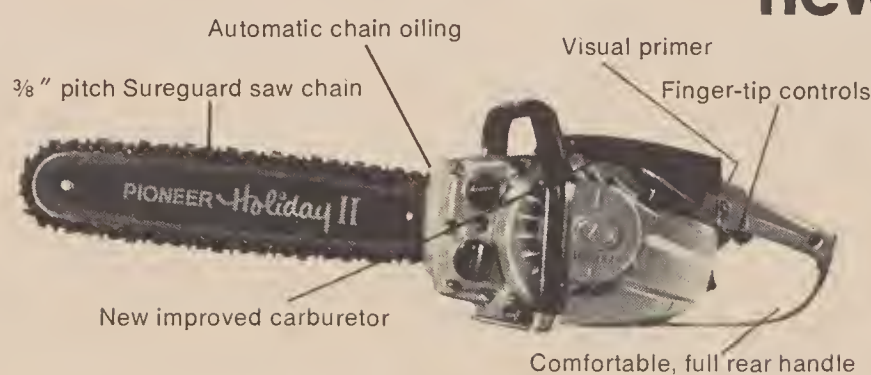
No matter how you slice it! The new Pioneer 2071 gives you more features than any other lightweight chain saw ever built.

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This eradicates quack. Averages you four tons more silage... 15 or more extra bushels... than just one spray. Follow with corn.

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So, when thinking ahead, remember the help AAtrex has given you over the years. Ever since you stopped using 2,4-D.

☐ For fall grasses, like crabgrass and fall panicum, Geigy recommends a tank mix of AAtrex and Princep®.

Controls these fall grasses, as well as most other annual grasses and broadleaf weeds. Plus, each herbicide is labeled for quack.

Check and you'll find that the AAtrex-Princep combination costs less than others. And it's safe to corn. Apply before planting, at planting, or shortly after planting. Moisture or a shallow cultivation moves the herbicides down into the weed root zone.

☐ Weed 'n feed is another idea that can save you labor. Spraying AAtrex or AAtrex-Princep along with nitrogen solution. Or complete liquid fertilizer. Your custom applicator can handle it for you.

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American Agriculturist

1971 HORSE JUDGING CONTEST

Class 1



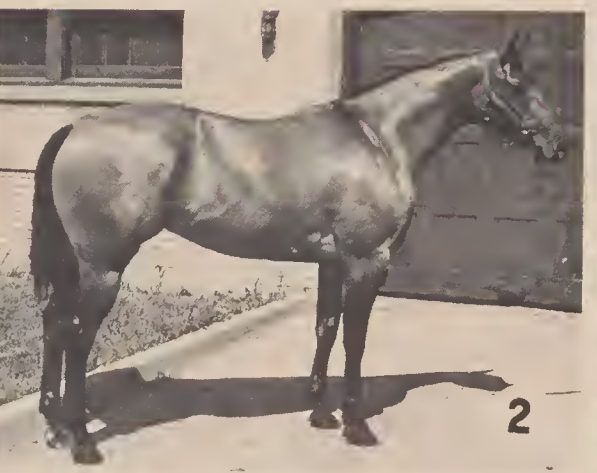
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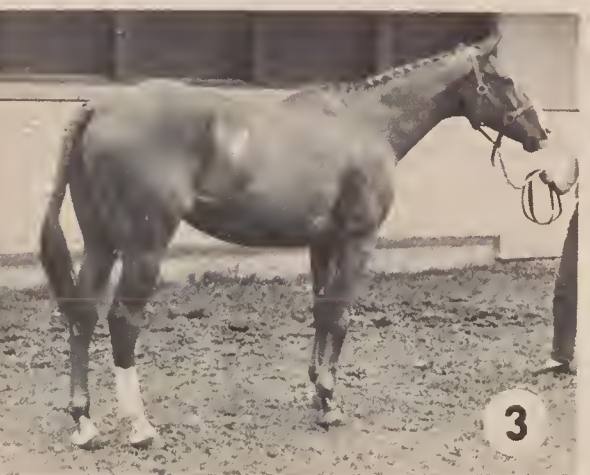
Class 3



Class 4



Class 5



AMERICAN AGRICULTURIST HORSE JUDGING OPPORTUNITY

As a means of providing educational materials for those who are interested in horses, and for the use of Extension Services and other groups that may wish to conduct judging contests, we are offering five classes for use in studying and evaluating horse conformation.

RULES OF 1971 PICTORIAL HORSE JUDGING CONTEST

1. Competition is open to residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania who own, ride or manage horses, or have an interest in them.

2. AMERICAN AGRICULTURIST employees and their families... as well as professional members of agricultural schools, colleges and Cooperative Extension... are not eligible.

3. The official entry form for the contest appears below. This form may be duplicated.

4. Only one entry per person is allowed. Print or type all information required, and mail so that it will be postmarked no later than midnight, April 15, 1971 to:

AMERICAN AGRICULTURIST
1971 Horse Contest
Box 370
Ithaca, New York 14850

5. Blue ribbons will be awarded to at least the top 250 high scorers on placings. In addition, special trophies will be awarded to the top 10 contestants.

6. In the final determination of the trophy winners, the judges may, if necessary, request a set of reasons on one of the classes to provide a basis for breaking tie scores.

7. Keep a copy of your placings, or mark your AMERICAN AGRICULTURIST for later reference. No entries will be returned. The decision of the

judges in making all awards will be final.

8. A complete summary with names of winners, the official placings, scoring key, and reasons will be published in AMERICAN AGRICULTURIST after the close of the contest.

CONTEST MATERIALS MAY BE PURCHASED BY ANY STATE OR LOCAL GROUP

1. State and local groups anywhere in the U. S. that sponsor their own contests may use these same classes. Those entering such local contests may enter the AMERICAN AGRICULTURIST contest as well if they are residents of the New England States, New York, New Jersey, Delaware, Maryland or Pennsylvania. States outside this area may develop their own entry form.

2. Reprints of the pictorial presentation shown at left may be purchased (without entry forms) by commercial organizations, colleges, vo-ag departments, local 4-H clubs, Extension Service offices and other groups (anywhere in the U. S.) from the AMERICAN AGRICULTURIST at the following price schedule:

Number reprints	Cost per sheet
20-50	10¢
51-100	8¢
More than 100	6¢
Minimum order of 20	

3. The five classes are available in a set of 2"×2" black-and-white slides at \$3 per set. Please send check, money order, or purchase order to:

AMERICAN AGRICULTURIST
1971 Horse Contest
Box 370
Ithaca, N. Y. 14850

After April 15, 1971, the official scoring key, placings and reasons will be published in AMERICAN AGRICULTURIST, and will be sent on request to slide purchasers.

*OFFICIAL ENTRY FORM

Mail before April 15, 1971 to:

AMERICAN AGRICULTURIST
1971 Horse Contest
Box 370
Ithaca, New York 14850

Your Name (Please Print) _____

Street, R.D. or Box Number _____

Village or City _____ Zip Code _____

County _____ State _____

Do you live on a farm? _____

Check your age. 9-19 ☐ 20-39 ☐

40-59 ☐ 60 or over ☐

How many horses on farm or premises where you live? _____

How many boarded off premises? _____

Check previous years you entered a picture judging contest of this type.

1967 ☐ '68 ☐ '69 ☐ '70 ☐

YOUR PLACINGS

	1st	2nd	3rd	4th
Class 1				
Class 2				
Class 3				
Class 4				
Class 5				

*This form may be copied or duplicated and used by residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania. All questions and information must be included.

American Agriculturist, February, 1971

farmers say,
"It's the
one spreader
that spreads
cost and
upkeep
as well as
manure."

"Sure my next spreader will be a Hawk Bilt, if this one ever wears out." D. H., Vinton, Ia. (pictured below)

"It really slings the manure and I've had virtually no maintenance or repairs." L. J., Walcott, Iowa.

Testimonials like these, plus years of field experience, show you can expect an average of 7 years of service from a Hawk Bilt spreader. Don't take our word for it. Start proving to yourself tomorrow with a visit to your nearest Hawk Bilt dealer.

Also ask about the dry fertilizer spreaders and newest additions to the Hawk Bilt line, the amazing Lot Cleaner/Spreader and cost-cutting Continuous Flow Grain Dryer.

Hawk Bilt builds for Farmers because Farmers built Hawk Bilt.



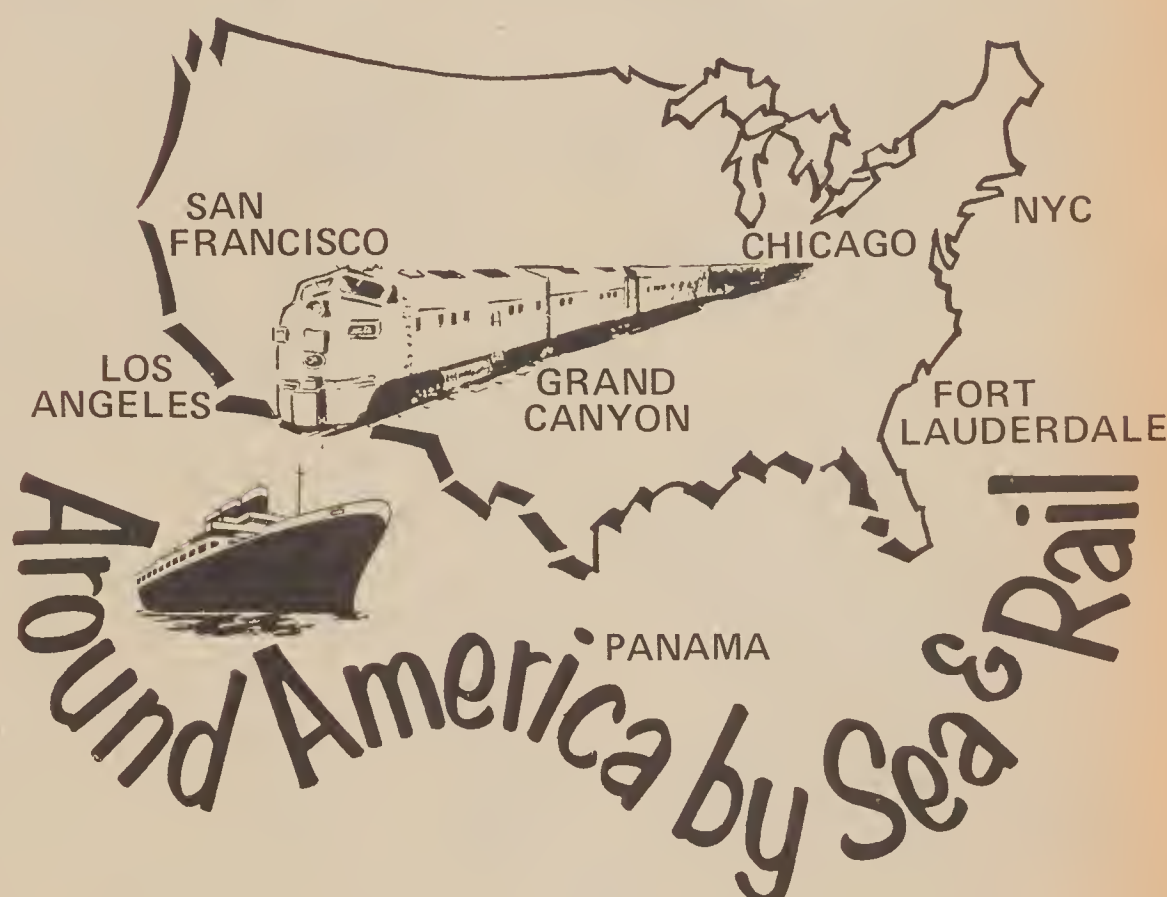
HAWK BILT COMPANY Vinton, Iowa 52349

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PLEASE PRINT

So You're Going To

BUY A HORSE

by Bill Rawlings*

PLEASURE HORSES are making a great comeback in the Northeast these days. Perhaps you are considering the purchase of a horse yourself; if you are, these

*R.D. #4, Rome, New York

comments may be of some help!

When should you buy a horse?

Generally, the price of horses is highest in the spring . . . due to the upcoming good riding weather, the opening of summer camps

for children, and the fact that a great many horse shows are held in the summer months.

As a general rule, you can obtain your best buy in the fall. The summer camps have closed . . . the children have gone back to school and have little time to care for their animals . . . and some buyers find that they do not have adequate shelter or feed to carry their horses through until spring.

Where can you purchase a horse?

A great many horses are sold at auction; there are at least three within 50 miles of my home. The auction is a place where one might get a wonderful buy, yet he

might also be "taken" by some of the folks who deal in horses.

Horses have been doped before going on the auction block, with the idea of making them calm. Imagine the surprise a greenhorn gets when the "dope" wears off and he finds that the easy-handling, gentle animal he bought turns out to be a bucking, snorting, fire-eating, impossible-to-handle horse!

Some people purchase their horses from dealers who bring them in by the truckload from the West and offer them for public sale at their barn. If you are able to tell the dealer just what you want, he can frequently fill your order, or get it on his next trip West.

Guaranteed

Beware the dealer who offers you a "guaranteed" horse, "If you don't like her, bring her back." When you do come back, he'll have another horse for you, but, "This horse is a little better than the one we sold you before. You can have her . . . as a special favor . . . for your other horse and \$150. And she is guaranteed." This could be a never-ending cycle, unless one of the horses does satisfy you, and you decide not to return.

Individual owners offer horses for sale from time to time in the classified ads. Or you might put an ad in your own local paper for a horse. Perhaps a son or daughter is going away to school, or has outgrown the animal . . . or maybe someone has a horse that is sick, hard to handle, or poorly mannered. You never know unless you go to see.

Some owners treat their horses better than fellow humans, offering them all kinds of special care . . . including supplementary vitamins, minerals, and special feed. Others maltreat them . . . or ignore them . . . without mercy.



My personal choice of a place to purchase a horse . . . and the hardest of all to find . . . would be at a breeding farm. Most breeders take pride in their product, and they want you to be satisfied. Be truthful and tell the seller your ability as a rider, what you wish to pay, and the use you want to make of the horse.

My friend, Jim Walsh, with more than 40 years of experience with horses of all kinds and types, prefers to buy a horse from five to twelve years old; this, he has found, is the equine prime of life. The years from one to six are the youth, and from twelve to eighteen can be considered old age.

For a child, or one just learning to ride, it might be better to buy a horse in the twelve-to-eighteen age category. The horse should be better mannered at this stage of life, but there is still

(Continued on next page)

American Agriculturist, February, 1971

Some of Agway's best customers are horses



They seldom appear in person, but their shopping lists show up often. Lists for everything from feed and vitamins to aerosol coat conditioner, hoof aid, tack and much more. For instance:

AGWAY TRIM with Mirra-Coat®—partially pelleted to be fed with hay. Contains the correct level of protein plus the minerals and vitamins needed by growing colts, fillies and brood mares.

® Borden Co.

AGWAY CHOICE—a complete horse and pony ration. The alfalfa and beet pulp built into each pellet supply all the roughage a horse needs. No hay. Horses love it!

AGWAY CHAMPION—a high-protein ration to be fed with hay. Develops strong bones and muscles in foals, weanlings and yearlings.

AGWAY TONE—a pelleted vitamin, mineral and high-protein supplement that supplies the nutritional elements lacking in simple oat-based feeding programs. Ideal for colts, mares in foal and stallions in season.

Make it easy on yourself. Next time you go shopping for your horse, come to Agway—the one-stop horse store.

Horse and Pony Feeds and Services

AGWAY

enough life to provide an interesting ride.

Have a veterinarian examine any horse before you purchase. Be especially critical of feet and legs; if they're not sound, the horse has little value. The vet can also tell the age of the horse by checking the teeth.

Handle the horse, if at all possible, ride him, see how he reacts. If you intend to show the animal, bear in mind that there seem to be more events for Quarter Horses than most other types. It has always been cheaper to buy a trained horse than to pay for the training; the training too is a part of the price of most horses.

Expensive

Few hobbies are more expensive than horses. Before you can make use of your original purchase... the horse... you must have a bridle, a halter, a saddle, a saddle blanket, a lead rope, and a hoof pick (to clean the feet daily). And there are other items to buy... a curry comb, a quirt, feed and water buckets, etc.

Add to this the cost of keeping the horse; if you don't have a barn or shelter of your own, board can run from \$40 to \$100 monthly.

The beginner should have riding lessons, at a price of \$4 per hour... and up. If you want to show your horse, add the cost of proper clothing, including boots. And getting your horse to the show is not inexpensive; a horse trailer can cost as much as \$2500!

If the "horse bug" really bites you, it might lead to an indoor ring for riding in inclement weather, building a new or better barn, or purchasing another horse... horses are gregarious and like companionship. You might even want a buggy and set of harness to drive with, plus a sleigh for winter driving (don't forget the bells).

Go Slow

For the beginner, best advice is not to buy in a hurry. Carefully check the horse you want; remember, there is tremendous pride in the ownership of a fine animal. Penn State offers an excellent nine-lesson correspondence course on the basics of horse management. The cost is \$3.45... write to Correspondence Courses, 202 Agricultural

Education Building, Penn State University, University Park, Pennsylvania 16802.

What breed should you buy?

My personal choice would include the Morgan, Arabian, and Quarter Horse. All three are easy keepers, tough, rugged, capable of taking our rough winter weather in the Northeast. All are versatile, capable of doing almost anything one could ask.

The Quarter Horse has a disposition second to none, and ours give a pleasant ride. Others feel that the Arabian has more spirit and style; they are certainly impressive when the riders enter the show ring wearing Arab costume with flowing robes. The Morgans have much to offer

those who wish an animal that looks good under harness or saddle; however, one will usually pay more for a Morgan or Arabian than a Quarter Horse.

A mare, a stallion, or a gelding?

The stallion is generally harder to manage and control than the gelding or mare. The mare can also add to your supply of horses, and pay for herself and her keep in this way. The gelding has little use other than riding for pleasure, and perhaps he might be the proper animal for you. Although the mare will come in heat at approximately 21-day intervals, this does not usually influence her ability to work under saddle.

Your horse will bring you many

hours of work... combing, brushing, cleaning the frog, feeding, working on the tack (saddles, bridles, etc.), hauling feed. The pleasure in owning an animal of your own offsets all the effort, however, and brings an added benefit in better health and mental attitude (or so my wife tells me).

He will depend on you to take care of him, and the care will be reflected in the animal, his attitude and his appearance. Treat him well, as well as you would like to be treated yourself, and you can enjoy many happy hours together.

Weigh the pros and cons of owning a horse, then make your own decision. Our bet is that you will buy at least one... we did!

Everything you've heard about camper-pickup engines is probably wrong.

Even if you've heard plenty of fireside talk on camper-pickup engines, you probably haven't heard the most important thing: the truth.

That's because opinions usually have one basic starting point: other opinions. And they tend to overlook a few basic facts.

Things like where an engine comes from. Just because it's bolted in a truck doesn't mean it's a truck engine.

Most pickups are powered by car engines. And there's a very good reason why.

Pickup manufacturers, in order to keep costs down, use the parts they have on hand. In effect, they "rob" their other assembly lines. If their other assembly lines have cars on them, they use as many car parts as possible. That includes engines.

Our other assembly lines have trucks on them.

So many of the V-8 engines in our pickups are the same ones we bolt into our big, gas-engined highway rigs.

Like all other manufacturers' engines, they have "two" horsepower ratings.

Manufacturer	Engine	Rated HP.	Net HP.
International	V-304	193.1 @ 4400 rpm	173.0 @ 3900 rpm
	V-345	196.7 @ 4000 rpm	182.3 @ 3800 rpm
	V-392	253.0 @ 4200 rpm	235.9 @ 3600 rpm
Manufacturer "A"	302 V8	205.0 @ 4600 rpm	150.0 @ 4000 rpm
	360 V8	215.0 @ 4400 rpm	177.0 @ 4100 rpm
	390 V8	255.0 @ 4400 rpm	180.0 @ 4000 rpm
Manufacturer "B"	307 V8	200.0 @ 4600 rpm	135.0 @ 4000 rpm
	350 V8	250.0 @ 4600 rpm	170.0 @ 4000 rpm
	402 V8	300.0 @ 4800 rpm	240.0 @ 4400 rpm

The one listed as gross "rated horsepower" is what the engine develops on the test stand. It's usually the horsepower used in advertising.

The "net horsepower" is what you wind up with, once the engine's in the pickup. It's a lower rating because of a horsepower loss in the accessories. You can't avoid losing some of it. All you can do is make sure you don't lose much.

We've taken precautions in that direction. International engines are designed to lose as little horsepower as possible.

What starts out to be a more powerful engine (205 hp. vs. our 193) ends up being less powerful (150 net hp. vs. our 173).

Engines should also last a long time. Ours

do. They're made a little beefier than most engines, to withstand rugged use. And, as the chart shows, they develop their power peaks at lower rpm's than most engines. So they don't have to turn as fast—and wear as fast—as most other engines.

They have to be honest. And they have to deliver the horsepower we promise. That's on the chart, too.

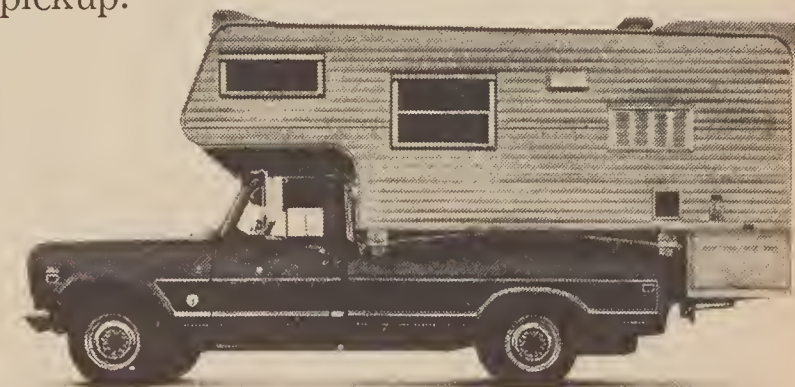
Suspensions play an important part in a camper-pickup's ability to carry a load with stability. That's why an INTERNATIONAL 1210 Camper Special pickup has leaf springs all around. It gives you twice as many points of suspension per wheel as an all-coil suspension system, 33% more than a combination of coils and leaf springs.

A camper-pickup's transmission has to do the work of a truck, not a car. And ours are built with that fact in mind. You can choose from two 3-speeds, two 4-speeds, a 5-speed heavy duty, a 5-speed with overdrive, and a 3-speed automatic. They're all truck transmissions.

Other things on an International 1210 Camper Special pickup's option list include a 4-wheel drive, auxiliary fuel tank, a binful of rear end ratios, bucket seats, air conditioning, AM-FM radios, power-steering and brakes, and more.

What's most important about all of them is that they go together to build a truck. Not just a pickup.

The International 1210 Camper Special pickup.



See it, test drive it at your International dealer's. It'll help you begin separating all of the facts from all of the fiction.



INTERNATIONAL TRUCKS

International Harvester Company, 401 N. Michigan Avenue, Chicago, Illinois 60611.



"Call Tom and ask him if he still wants to buy that young Angus bull."

EZEE FLOW INTRODUCES SPIN BROADCASTING AT ITS PENNY-PINCHING BEST.



3-point hitch

twin spinner. Spreads chemical fertilizers as well as most seed varieties. Covers an acre in less than 3 minutes. Hopper holds over 900 lbs. of fertilizer ... over 11 bushels of seed. Spreads up to 30-foot widths, 3 to 2,000 lbs. per acre. Twin spinners give uniform spread or you can shut one off for one-side spreading. Ideal for farms, orchards, vineyards, golf courses.



3-point hitch

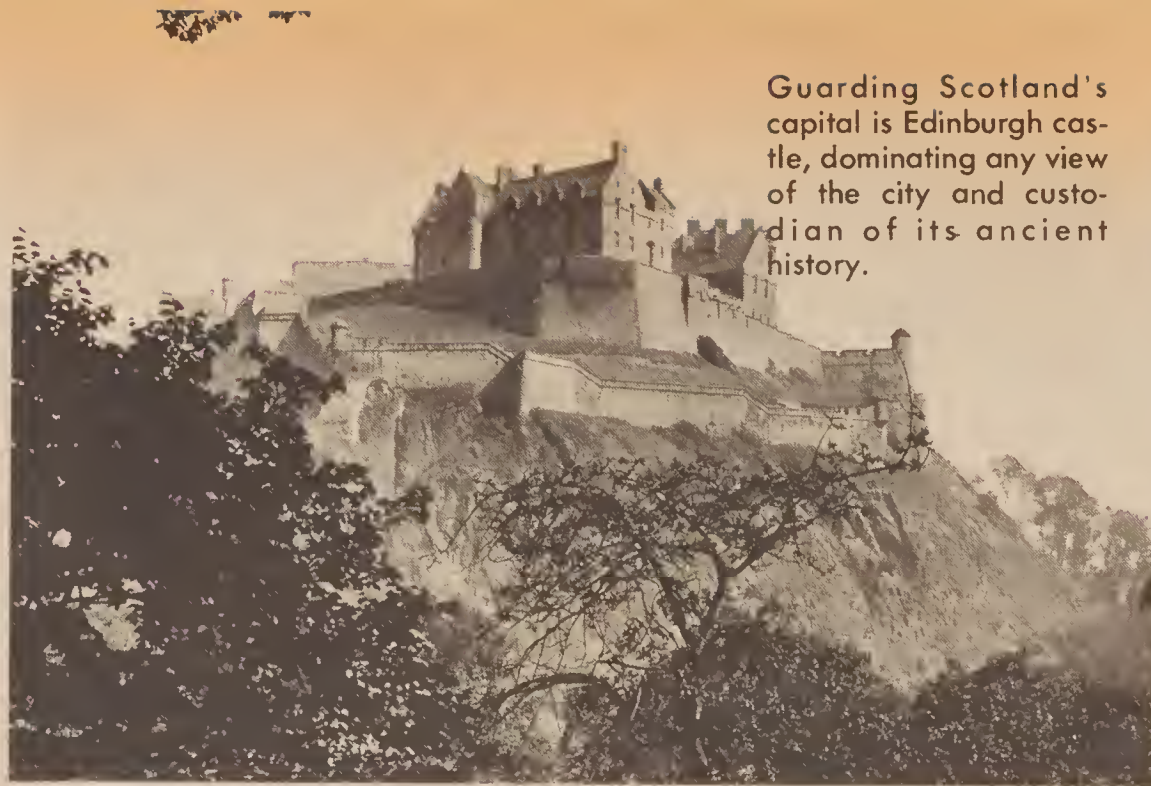
spinner seeders. Choice of 3- or 5-bushel models; single spinner gives an effective spread width up to 56 feet. Both weigh less than 100 pounds and are designed for fast, easy one-man mounting. Shutter control for spread rate is easily reached from the seat. Optional hopper extensions increase capacities.

For the name and address of your local dealer, contact:

Allied Farm Equipment, Inc.
McCune Frick Division
3721 Mahoning Avenue
Youngstown, Ohio 44515



Coldwater, Ohio 45828



Guarding Scotland's capital is Edinburgh castle, dominating any view of the city and custodian of its ancient history.

EXCITING SPRING VACATIONS

We've changed the regular itinerary for our **British Isles Holiday** this year and included something so different—a four-day visit to **Iceland**—that we feel sure it will be an early sellout. The dates are **May 29 to June 18** (we're sorry incorrect dates were given in last month's tour story), perhaps the most beautiful time of the year to be in the British Isles.

In England we first visit Shakespeare Country—Stratford-on-Avon, Anne Hathaway's Cottage, Trinity Church, Warwick Castle, and the controversial new cathedral at Coventry. Next comes Windsor Castle, St. George's Chapel, and then all the famous and interesting sights of London—Piccadilly, Leicester and Trafalgar Squares, Parliament, Westminster Abbey and Buckingham Palace, to name a few.

We will also have a full day at leisure to shop and continue sight-seeing as we wish. Before leaving England we will visit Winchester, mysterious Stonehenge, Plymouth, Bath, the beautiful Lake District and many other places too numerous to mention.

We spend two interesting days in Wales, a part of the British Isles we have missed the past few years, and then continue our vacation in Scotland. In Edinburgh we will see the Castle, famous Princes Street, the Royal Mile, John Knox's House, Thistle Chapel, and Holyrood House.

Our trip to the British Isles concludes with three wonderful days in the Scottish Highlands. Bluebells are scattered over the hillside, rhododendrons are in bloom, and the sparkling lakes are a joy to behold. Just a few highlights of this area are Perth, Balmoral Castle, Loch Ness and Loch Lomond.

We fly from Glasgow's airport to Reykjavik, Iceland, arriving in

full daylight even though it's late evening. The first place we visit in this unusual country is Hveragerdi. It is surrounded by steaming hot springs, used to heat greenhouses where we'll see bananas, grapes, and other unexpected plants growing.

Other interesting places included in our schedule are Gullfoss, the Golden Waterfall, the Great Geyser, Laugarvatn Tourist Center, Lake Thingfallavatn, Thingvellir where the Icelandic open-air Parliament was first held over 1000 years ago, and beautiful Lake Myvatn. Finally, we participate in Iceland's Independence Day celebration, a gala occasion complete with native costumes, parades, bands, and dancing.

Other Trips

Don't forget our **Springtime in Hawaii Tour** (April 18 to May 1) which includes all the interesting and beautiful places everyone wants to see on the four main islands — Oahu, Hawaii, Kauai and Maui plus plenty of free time to shop, enjoy the beautiful beaches, and other attractions in our Pacific Paradise.

Also, you'll want to make your reservations soon for our **Inland Waterway Cruise** from May 23 to June 4. Last year we were unable to accommodate all the folks who wanted to go on this popular vacation, so we've again reserved the M.V. Mount Hope exclusively for our AA party. You'll enjoy smooth sailing, beautiful scenery, interesting shore excursions, excellent food, and fine companionship.

Three Weeks In Italy

For the first time this year, we offer a tour that "really does Italy," from the ancient Greek ruins and historic cities of picturesque

(Continued on page 31)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

British Isles-Iceland Holiday _____ Italian Holiday _____
Mt. Hope Cruise _____ Mexico Fiesta Tour _____
Springtime in Hawaii _____ Around America by Rail and Sea _____

Name _____
Address _____
Zip _____
(Please print)

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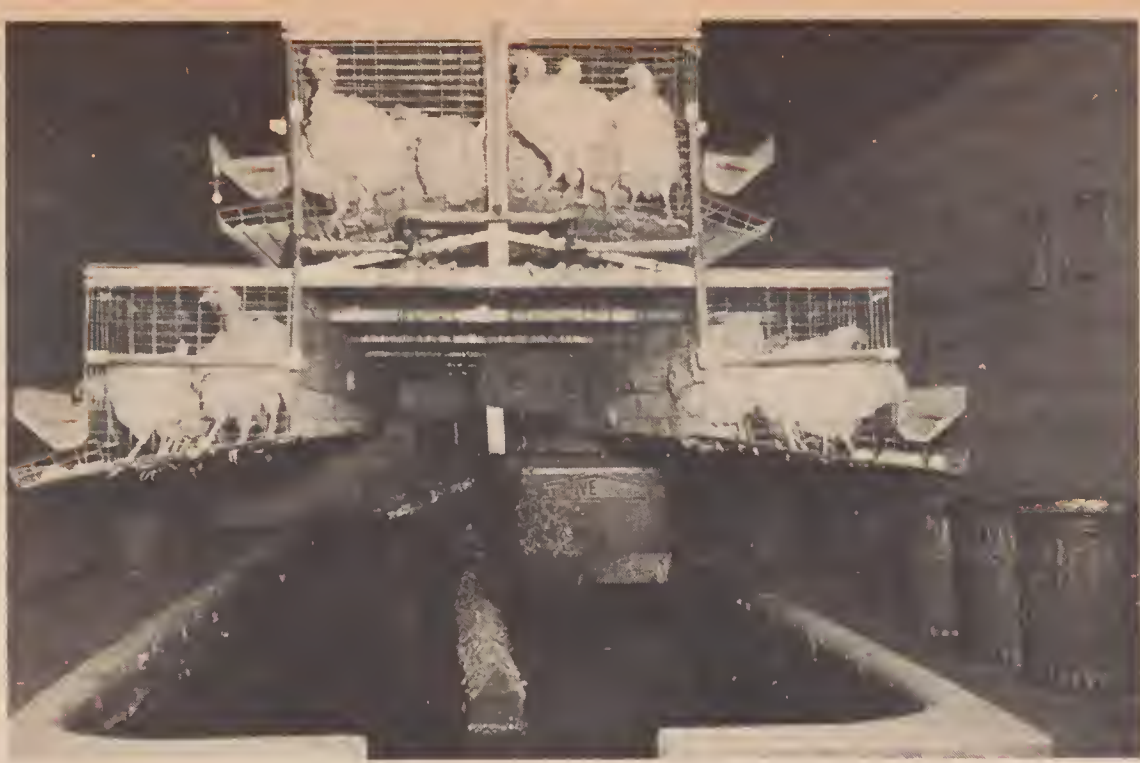
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This oxidation ditch has performed well under experimental conditions at Cornell's Agricultural Waste Management Laboratory. Powered paddle-wheel is at right.

RETURN of the PADDLE-WHEEL

CORNELL's Agricultural Waste Management Laboratory is one of the largest such facilities in the nation. Built in response to a rising concern about pollution, the Laboratory is intended to carry out research in finding feasible waste-management programs that can be broadly applied to agriculture.

Several experiments are underway there that evaluate alternative ways of handling poultry manure. One of the most promising is the oxidation ditch.

The Paddle

A simple paddle-wheel arrangement "beats" air into the solution water and manure as the wheel

moves the liquid around and around the ditch. This prevents any activity by anaerobic bacteria... the black-hats that can't stand oxygen, and that create the really offensive odors.

The "good guys"... the aerobic bacteria... create ammonia as a by-product of their life processes. But no problem; there are other bacteria present that use ammonia as food, and they gobble up this potential eye-waterer.

An oxidation ditch under caged hens had been in operation for eight months when I visited the AWML... and the room smelled like a rose! A stick probed into the gunk at the bottom of the ditch even came up practically odorless.

Researcher Arthur Anthonisen reports the only noticeable odor over the eight months was ammonia for the first few weeks at start-up... until the numbers of those ammonia-gobblers had built up. He commented that there was also some foaming caused by the paddle-wheel for the first 3 to 4 weeks, but none since. The paddle, by the way, runs all the time except when being serviced.

The ditch, measuring 28 inches from the top of the curb to bottom of the ditch, had not had any liquid pumped out in the eight-month period of operation. Water had been added at times, but normal evaporation had prevented any overflow.

Impressed

Poultry specialist Charles Ostrander at the NYS College of Agriculture is impressed with the oxidation ditch experiment. He had been disillusioned with this approach when observing them during a sabbatic leave in England, but he has concluded that shock-loading... dropping in a big load of manure all at once... was the trouble there. If the oxidation ditch is under the cages (rather than outside the poultry house), and therefore being loaded uniformly over time, he thinks the ditch offers great possibilities.

Next step is to try it out on a commercial scale... scheduled soon on a Central New York poultry farm if research funds are available.

For details about the Laboratory, write: Dr. Raymond Loehr, 207 Riley-Robb Hall, Cornell University, Ithaca, New York 14850.

Time to check your DAIRY-CARE department?



Be sure you have these Dr. Naylor "dependables" on hand to help keep your dairy herd in top shape. Modern medication for modern animal care, these Dr. Naylor Veterinary Products are proven favorites with herdsmen across the land:



DR. NAYLOR'S MEDICATED TEAT DILATORS

With super-soft 2-Way Action... (1) Act mechanically to keep teat end open in natural shape—to maintain free milk flow. (2) ACT MEDICALLY—Sulfathiazole in Dilator is slowly released in the teat for prolonged antiseptic and healing action.

Large Pkg. (40 Dilators)—\$1.50

BLU-KOTE

Spray or paint it on! Effective in treatment of Cowpox*, ringworm, skin abrasions. It covers wound with quick-drying, penetrating coating—to reduce pus formations, dry up secretions, control secondary infections*.

4-oz. Dauber Bottle—\$1.00
6-oz. Spray Bomb—\$1.29



UDDER BALM

A modern antiseptic ointment for udder and teats... stays in prolonged antiseptic contact to relieve soreness, reduce congestion. Softens udders and heals teats! The same soothing, softening ointment in which Dr. Naylor's Medicated Teat Dilators are packed!

9-oz. Tin—\$1.25



STOP-A-LEAK

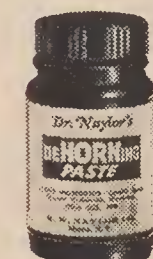
For cows' teats that leak milk. Constricts round muscles at end of teat. A liquid to apply over end of teat after each milking for a few days only.

2-oz. Bottle—\$1.25

UDDER LINIMENT

An emollient, antiseptic massage cream. It represents the analgesic and absorbing action of Menthol, Thymol, Methyl Salicylate in a protective oil base. Clean to apply, quickly absorbed. Particularly useful to producers of certified milk.

10-oz. Bottle—\$1.25



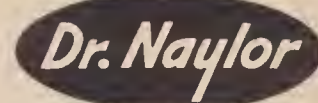
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JOSEPH HARRIS CO., INC.

15 Moreton Farm

Rochester, N.Y. 14624

Vacations

(Continued from page 30)

Sicily to the sparkling lakes and magnificent mountains of the Italian Alps. Dates for our Roman Holiday are May 3 to 24.

We'll travel the famed "Golden Ribbon of Sicily" and around Mount Etna, then along the rugged coast line to Salerno Bay and the Isle of Capri. All roads lead to Rome, and on the way we'll visit Pompeii, Vesuvius, and Monte Cassino. Continuing northward, we'll see Siena, Pisa, Florence and the beautiful Adriatic coast, including the tiny Republic of San Marino situated on a mountain top overlooking the Adriatic.

After a visit to Venice, we'll climax our Holiday with four days in the incomparable Lake District of the Italian Alps—Bolzano, Lake Como and Lake Maggiore, with a final stop in Milan to see the magnificent Cathedral and La Scala Opera House before returning home. Plan now to go with us to Italy.

If you've ever been on one of our tours, you know that traveling with AMERICAN AGRICULTURIST and Travel Service Bureau is the nicest way in the world to take a vacation. Everything is included in your "all-expense" ticket, and our tour escort takes care of all details. You have no travel worries of any kind, so there's nothing to do but relax and enjoy yourself. Write today for the folders of the trips which interest you.

sleep well

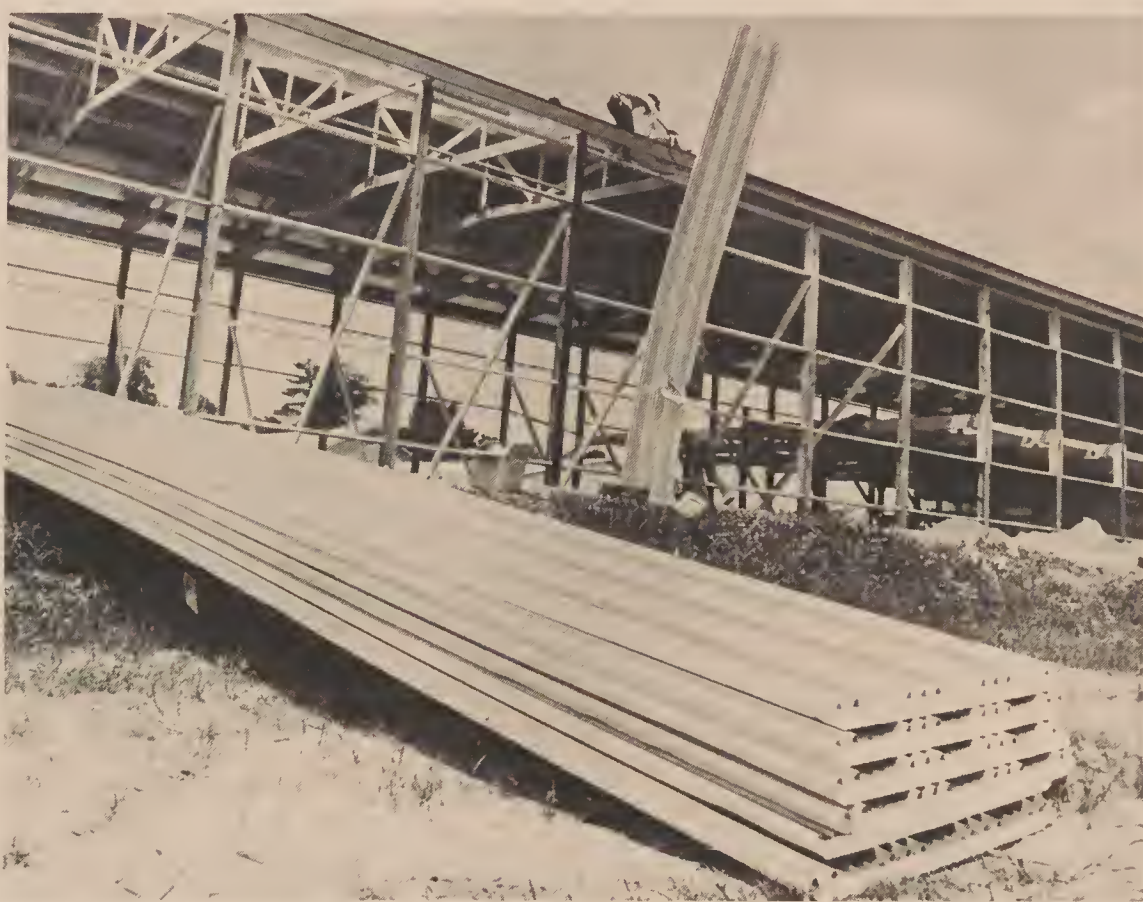


Chores all done. A fine meal. Got some paper work done and watched some TV. It sure is easier turning in at night knowing some important things never go to sleep. Like the protection from Farm Family Insurance Companies. Covers the whole farm, too. Buildings. Equipment. Even family and personal belongings. Here's a company that proves they know farm problems by all the different plans and programs they have. You might say you owe it to the farm to talk with a representative from Farm Family. Chances are you'll sleep a little better.

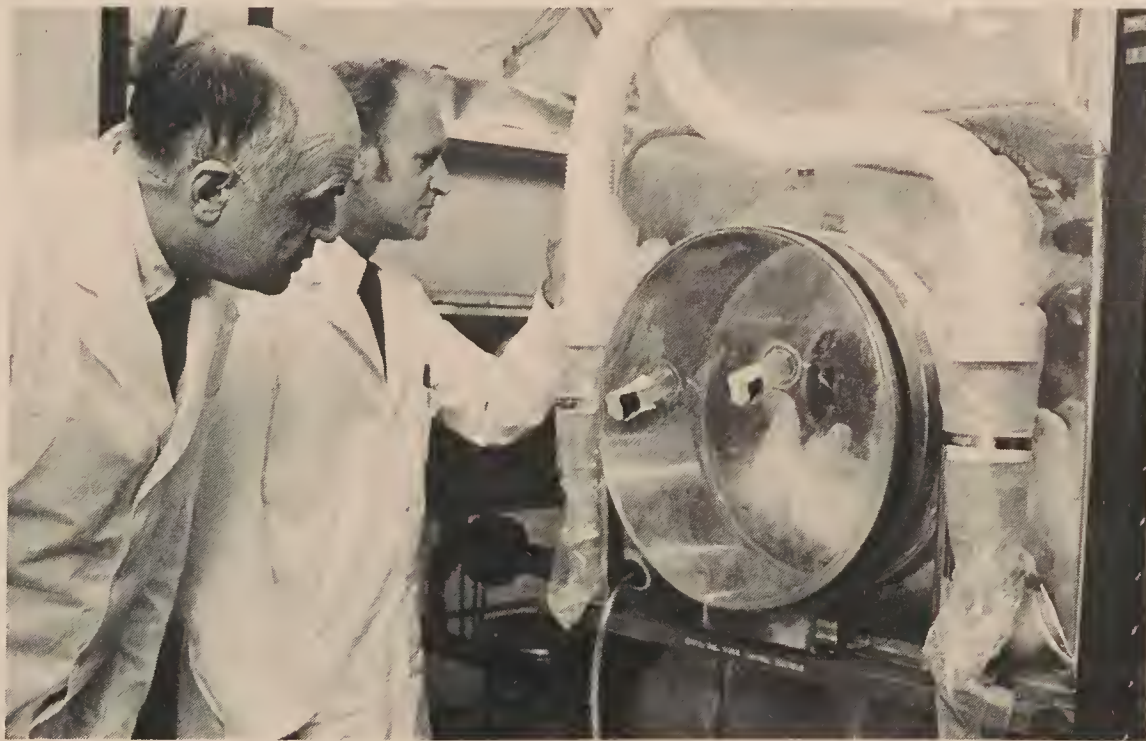
Farm Family
LIFE INSURANCE COMPANY
MUTUAL INSURANCE COMPANY
GLENMONT, NEW YORK



That's Roger Giroux of Chazy, New York, in the foreground watching eggs going by on the belt. They go through washer, blood-spot detector, grader, packer and into cartons without being handled by human hands. House is 368 x 40 feet, of the high-rise type, cages serviced by a powered tram visible in background. Tram is powered by six 12-volt batteries, rolls on three rails (one at each end, plus one in middle). Building houses 30,000 birds in 18 x 24 inch cages . . . 8 birds per cage in half the house, 9 per cage in other half. Photo: New York State Electric and Gas Corp.



Pictured is construction of a high-rise laying house 432 feet long at the farm of Raymond Sperry, Atlantic, Pennsylvania. Unusually long lengths of roofing and siding minimized on-site labor time. Roofing and siding panels are composed of a lightweight foam core bonded between exterior wall of aluminum siding and an interior vapor barrier of aluminum foil. Insulation value of the panel is equivalent to 56 inches of concrete! For more information about the panels, write Aluminum Company of America, 671 Alcoa Building, Pittsburgh, Pennsylvania 15219.



Early 1971 is the target date for marketing Deptavac HVT, Merck and Company's new vaccine against Marek's disease. Above, research scientists Drs. Maurice Hilleman (left) and Eugene Buynak, who spearheaded the development of the vaccine, view chickens grown in an isolator that protects them against accidental contamination. Such isolators help assure the validity of results from tests on the safety and efficacy of the vaccine. Both men previously played leading roles in the development of human vaccine for mumps, measles and rubella.

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Without residue problems.

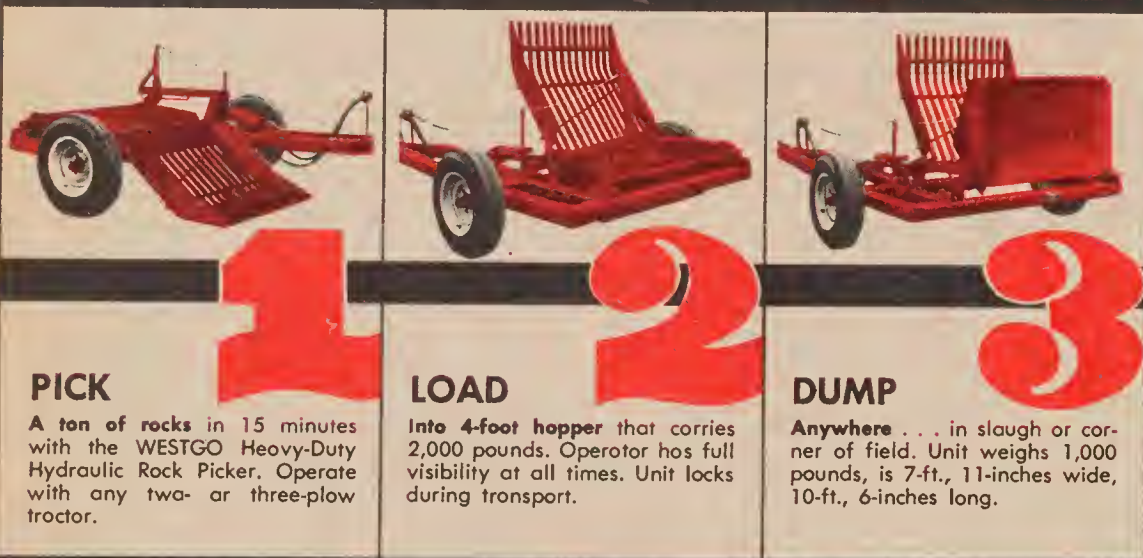
Which is why, in these changing times, Diazinon 14G may well be the corn soil insecticide for you this season. And, if you're in no-till corn, there's no question about it.

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ACCOUNTANT FOR FARMERS



Bill Boeck adds some figures

FOR six years, W. F. Boeck has been heading up the "Farmer's Accounting Service," with offices at Gilbertsville, New York. It involves the services of three full-time people, and two on a part-time basis. All farms involved are dairy operations.

Bill's background includes a stint as a banker . . . as well as many years of managing dairy farms in New York, New Jersey, and Connecticut. All these dairies sold milk at retail as well as wholesale, involving far more accounting than on the usual dairy farm.

Services

The basic services provided by Bill's present enterprise involve "keeping the books" for the farm business, as well as offering consultation on farm management decisions. A monthly profit-and-loss statement is provided each client, plus a breakdown of expenses into various categories. An annual financial summary is also calculated.

The FAS people also do the income-tax reports for most of their clients. However, Bill is not interested in doing income tax reports for farmers not enrolled in the accounting service program.

Although business-management analysis figures . . . such as fertilizer cost per acre, for instance . . . are provided on re-

quest, they are not a standard calculation. Bill (or an employee) goes to the farm each month to get needed figures, rather than having farmers send them in.

Figures on personal family expenditures are also gathered. Although not counted in profit or loss, the figures do help show a more complete picture of where the farm income is going.

Some observations Bill makes about dairy farming:

— "It's a business where net worth can be built very rapidly, perhaps faster than almost any other."

— "A common management mistake farmers make is trying to keep up with the Smiths by having all the latest (and biggest) gadgets that may not pay for themselves. Another is trying to short the home when it comes to spending: net income . . . if momma isn't happy, then nothing goes right!"

— "Forty cows milking throughout the year (55-60 cows in all) is still the most economical size of dairy business."

Clients at present include New York farms in Otsego, Broome, Delaware, Chenango, Montgomery and Tioga counties . . . plus a few farms in Pennsylvania. Bill is pushing for 300 farms to be served from his new offices at Morris, New York . . . to which he only recently moved.

The Song of the Lazy Farmer

I read a piece the other day when Jane Mirandy was away that said us men should be the boss. A fam'ly is a total loss, it said, when men are calm and meek and keep still when the women speak. A man should rare up on his feet and not be always nice and sweet, but give his wife to understand he runs things with an iron hand. So I resolved that I would be a real and tough he-man, by gee; no more will I salute and jump when Jane Mirandy starts to grump, it's time for me to take a chance and let her know who wears the pants.

So when my wife came home I sat without a move and told her that she should proceed to fix the fire; I guess my tone aroused her ire 'cause she said, "Look, I've had enough, it's much too late for that kid stuff, you know who's boss around this place so just head at a rapid pace out to the woodpile for some sticks or you'll be in a first-class fix; when time for supper rolls around, there'll be no vittles to be found." Which goes to prove that

folks who write aren't necessarily so bright; I've learned that there ain't any need to go by everything you read.



1971 TAX MANAGEMENT GUIDE

The 1969 Tax Reform Law made sweeping changes, many of them applicable to you as a farmer or rancher. No matter how knowledgeable a tax manager you are, you should take extra time this year to study these changes and what they can mean to you.

Doane's Tax Management Guide tells . . . in clear, easy-to-understand language . . . how to apply the new tax laws in making out your 1970 income tax return. More important, it explains how the management procedures you initiate NOW can minimize your 1971 tax burden.

Become familiar with the tax reforms that relate directly to farming, and other more general changes, by sending for your Doane's Tax Management Guide. Do it today.

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FORMULA 69

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BROWN SWISS WINNERS

Donna M. Cupernall, aged 17, granddaughter of Mr. and Mrs. Ross Brady of Jefferson County, has been selected as the New York State 4-H Brown Swiss Girl. She succeeds Velinda Notter of Schoharie County.

Donna resides with her grandparents on a dairy farm near LaFargeville. She has an enviable record of showing prize-winning cattle, and has been active for seven years in 4-H work. For the past two years, she has been a member of the Future Farmers of America, and is currently vice president of the Jefferson County FFA.

Irving Ellsworth, son of Mr. and Mrs. Irving W. Ellsworth of Fairport, Monroe County, is the New York State 4-H Brown Swiss Boy. Irving succeeds William Hewlett of Dutchess County. The family keeps about 350 cows, of which 200 are milking. Irving is now in partnership with his father and plans to continue on the home farm which has been in the family for more than 125 years.

BIG ONE

The Van Dam Bros. Farm near Walden (Orange County), New York, boasts a recently-erected 25'x80' Harvestore silo . . . a size in the largest category made by the company.

Filled with cornlage (corn silage at 50 percent moisture) this fall, it will be used mainly for hay-crop silage in the future.

LANDSCAPING AID

"Landscaping the Home Grounds" is the title of a new 64-page, attractively-illustrated paperback volume designed to help the homeowner with all phases of landscaping . . . site analysis, preparation of the landscape plan, selection of trees and shrubs, ground covers and vines, . . . as well as planting and maintenance.

The new booklet, an Extension Service bulletin published by the Penn State College of Agriculture, is available from: Agricultural Mail Room, 110 Service Building, University Park, Pennsylvania 16802. Cost is \$2 per copy (Pennsylvania residents add 6 percent sales tax). Checks should be made payable to Pennsylvania State University.



"Glad you enjoyed the ride, Grandpa, but you'd better break it to Grandpa tactfully that you want one for your birthday."

POULAN/ WRIGHT DEALERS

NEW YORK

Amityville Feed Supply — Amityville
George Burnison — Attica
Tri-Rentals — Babylon, L. I.
Sunrise Tool Service — West Babylon, L. I.
Farrell Plumbing & Heating Co. — Baldwinsville
Perrino Tractor — Ballston Spa
Arthur J. Rauff — Bayshore, L. I.
Abbey Rental — Bayside, L. I.
United Rent Alls — Bayshore, L. I.
Wittenburg Lumber Co. — Bearsville
Langs Hardware — N. Bellmore
Blue Point L/M — Blue Point
Paradise Lake Sls. & Svce. — Bolivar
Brant Machine — Brant
Sunport Products, Inc. — Bronx
Empire Tractor & Equip. Corp. — Briarcliff Manor
Southaven Service — Brookhaven
Brooklyn Locksmith — Brooklyn
Grossman Lumber Co. — Brooklyn
White Tool Co. — Brooklyn
Hilltop Sharpening Service — Canandaigua
Percy Schermerhorn — Catskill
Centerbeach Rental — Centerbeach
Bowman's Sales & Service — Clinton Corners
Fort Neck Rental — Copiague
Island Hardware — Copiague
Alcan Machinery & Equip. Co. — Corona
John Lawrence Garage — Dansville
Ralph Barnhart — Deposit
H. W. Cook — DeRuyter
United Rent All — East Meadow
Mike's Bicycle Shop — Elma
Stillwell Supply — Elmsford
Halpin Implement — Endicott
Schutts Mower & Saw Shop — Falconer
Modern Scaffolding — So. Fallsburg
Flushing Saw Service — Flushing
Freepoint Equip. Sales & Rental — Freeport, L. I.
American Rental — Garden City
Leroy Wilson — Granville
Greenlawn Bike & Mower — Greenlawn
Malvese Mower & Equip. — Hicksville, L. I.
Wm. Kroemer Seed Co. — Hicksville, L. I.
A. F. Grabb — Hudson
Kingham Hardware Co., Inc. — Hudson
McElroys — Huntington
Dependable Tree Service — Hurley
Marians Lawn Mower Shop — Islip
Arts Fixit Shop — Ithaca
Flanagan Equipment — Jamesville
Larry's Saw Shop — Kanana
Halls Sales & Service — Lake Luzerne
Harry B. Hicks Lumber Co. — W. Lebanon
A. R. Christiano — Leicester
Dolan Tool Rental — Lindenhurst
Steigers Lawnmower — Lindenhurst
Wm. Kuhneck Chain Saws — Little Valley
David Hoag — Livingston Manor
Walter Kohl — Lockport
Contractors Supply Corp. — Long Island City
Mahoney Clark — Long Island City
Aldian Rental — Mamaroneck
Bill Sosler — Middletown
Apollo Scaffolding — Monticello
David M. Elder — Montrose
Wesley Boylan Co. — Munnsville
Capitol Electric Tool Co. — New York City
Calvert Tool Rental — Newburgh
Charles A. Juriga — Nineveh
Nunda Lumber Co. — Nunda
Murdoch Hardware & Implement — Oneonta
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Duells Garden Store — Walworth
Shermans XL Cycle Shop — Warrensburg
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NEW JERSEY

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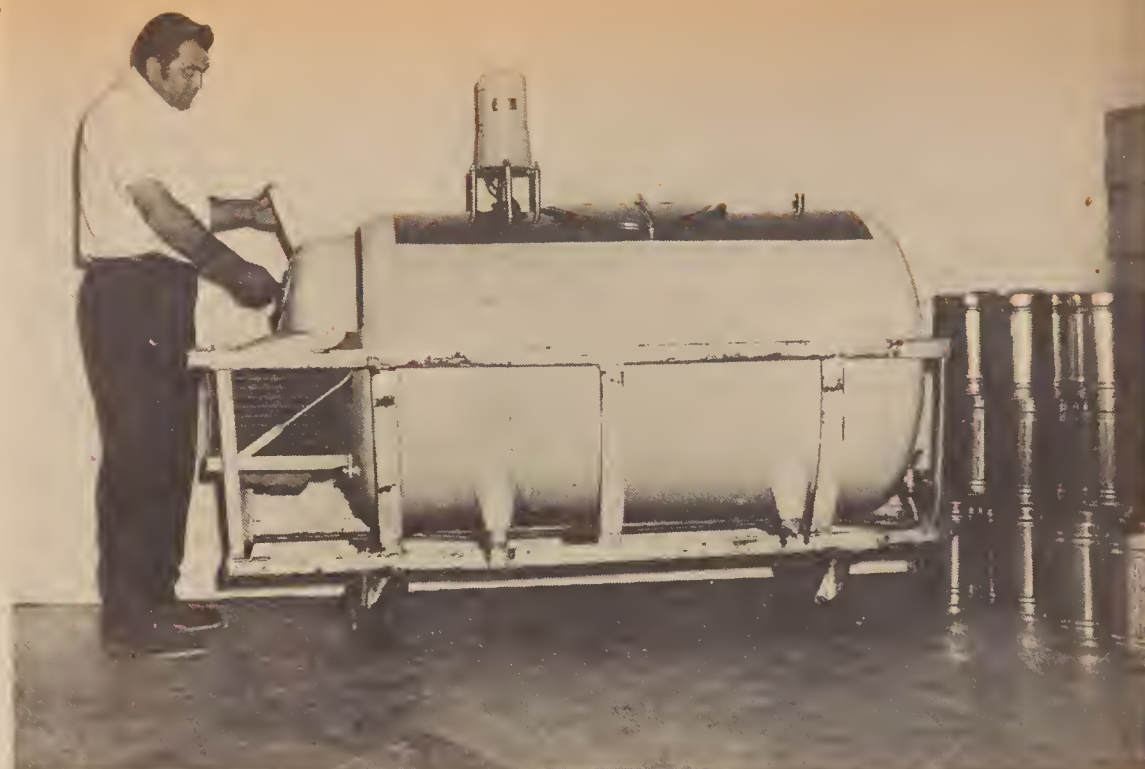
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Roy Draper uses 150-gallon bulk milk tanks on wheels for transporting liquid eggs . . . each of the six used holds up to 1800 pounds.

BREAKER SPECIALIST

THERE are fewer than ten egg-breaking facilities in New York State . . . one of which is located at Dryden, and operated by Roy Draper.

Breaking eggs doesn't sound very complicated . . . after all, most everyone has broken quite a few at one time or another, especially into a skillet. But professional egg-breakers speak in terms of thousands of eggs per day, and the machines they use are fast as well as complicated. Furthermore, it requires considerable expertise to do the job in such a way that customers are happy, and regulating authorities satisfied.

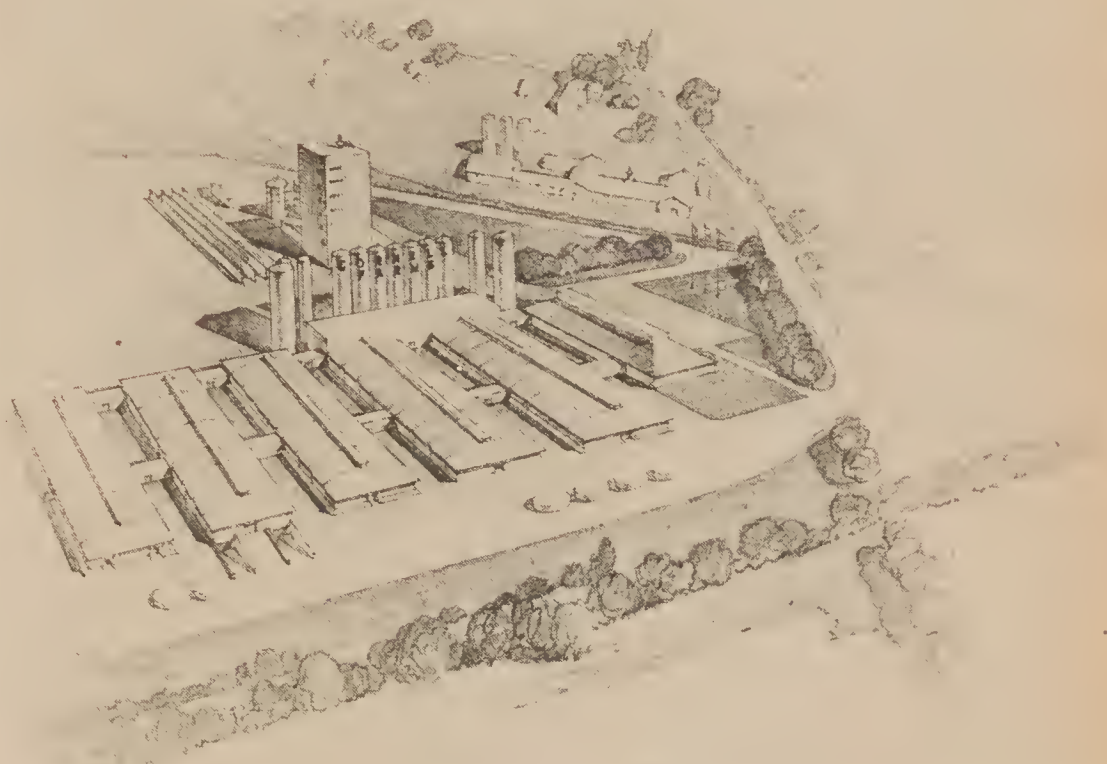
Draper produces whole eggs, egg white, and sugared yolks as finished products . . . and also makes a "Circle D Special Blend" containing 30 to 33-percent egg solids. Products go to wholesalers, who re-sell, or directly to bakers, noodle manufacturers, candy companies, meat

packers (for binder in processed meats), and ice cream makers.

Breakers buy a lot of small eggs (pullet and peewees), large eggs (jumbo), and eggs from birds toward the end of a production cycle . . . when shell quality begins to deteriorate. Long considered as salvagers, or as outlets only in time of distress prices for shell eggs, the breakers are trying to systemize procurement procedures for a more even flow of eggs to their plants.

Roy pasteurizes all products . . . whole eggs and yolks at 143 degrees Fahrenheit for 3.5 minutes and the whites at 138 degrees for 4 minutes. And if something goes awry so that eggs cook in the pasteurizer tubes, may the Good Lord have mercy on the operator's soul!

A growing percentage of U.S. food reaches the consumer in processed form. It's logical that the same trend is influencing egg marketing . . . and Roy is betting that the 70's will be the "Decade of the Broken Egg"!—G.L.C.



Construction is underway on the \$1,396,888 first stage of Cornell Farms, a project that will provide a research and teaching facility for the New York State College of Agriculture. The five 80 x 100-foot shells pictured in the architect's sketch above will house the College's experimental dairy herd, expected to be moved in during the spring of 1972. The building at right of barns and the multi-storied structure at rear will be constructed in a later building phase. Most of the old farm buildings in the background will be dismantled. Ultimately the sheep, swine and beef animals will be housed on the farm of 1,200 tillable acres, located three miles south of Dryden, New York, 16 miles east of the College on route 38.

Let's Travel Back With

JOURNEY TO DAY BEFORE YESTERDAY

by E. R. Eastman



The sales of "Journey to Day Before Yesterday" continue to be good because so many who have read it keep telling others about it. Young and old alike get a kick out of learning how their forefathers lived; and youngsters really begin to believe that Grandpa's stories "really happened."

For a copy of this nostalgic book, well-bound and illustrated, send check or money order for \$7.30 (New York State tax included) to American Agriculturist, Book Department, Box 370, Ithaca, New York 14850.



Lime Meringues are a delightful ending for dinner any time of year. They're easy to make and pretty enough to serve company.

Add Sparkle to Winter Meals with

CITRUS

by Alberta Shackelton

The citrus season offers the home-maker a gold mine of refreshing menu items and in-between-meal snacks. We hope you'll enjoy these recipes and the suggestions for using the many varieties of citrus available in our food markets.

BROILED GRAPEFRUIT

Cut grapefruit in halves. Flick out any seeds with knife tip or fork. Cut around each fruit section with a sharp knife, beginning and ending at core. Do not cut around edge of fruit. Remove core by cutting all the way around with tip of sharp knife or snip with scissor points.

Sprinkle each half with granulated or brown sugar, or spread with honey or maple syrup. A dash of cinnamon or other favorite spice may be added if desired. Dot with butter. Broil 3 to 4 inches below heat for 5 to 10 minutes, or until bubbly and slightly browned around edge.

CITRUS SHRIMP BASKETS

3 grapefruit
4 navel oranges
1 pound cooked, deveined shrimp

Prepare grapefruit as for broiling but remove fruit sections and cut out core and membranes, leaving shells. Notch edge of shells with scissors if desired.

Peel oranges and cut sections half-way between segment walls, so membrane is in center of the "meat." Combine grapefruit, orange sections and shrimp and spoon into grapefruit shells (line first with crisp greens if desired). Serve with your favorite French dressing.

FRESH BEETS IN

ORANGE BUTTER SAUCE

½ cup fresh orange juice
1 to 2 teaspoons lemon juice
3 tablespoons butter
¼ teaspoon salt
3 cups shredded fresh beets
1 teaspoon cornstarch
1 teaspoon water

Combine orange juice, lemon juice, butter and salt in saucepan with cover. Bring to boiling point, add beets and cook covered for 5 minutes or until beets are tender. Mix cornstarch with water and add

to cooked beets. Stir and cook about a minute or only until sauce has thickened. Serve hot. Makes about 4 servings.

SKY-HI LEMONADE CHIFFON PIE

1 baked 9-inch pie shell or crumb crust
1 envelope unflavored gelatine
½ cup cold water
Dash salt
4 eggs, separated
1 can (6 oz.) frozen lemonade concentrate, thawed (do not add water)
½ cup sugar
½ cup heavy cream, whipped
Chopped coconut
Sliced strawberries, fresh or frozen (partially thawed)

Combine gelatine and cold water, add salt and slightly beaten egg yolks; mix well. Cook with constant stirring over low heat (or in a double boiler) until gelatine dissolves and mixture thickens slightly. Remove from heat and stir in thawed lemonade concentrate.

Chill, with occasional stirring, until mixture mounds slightly when dropped from a spoon. Beat egg whites stiff but not dry. Add sugar gradually, beating well after each addition. Fold in gelatine mixture and then the whipped cream.

Turn into baked shell and chill until firm. To serve, garnish pie with ring of coconut about ¾ inch from edge. Place sliced berries on filling against the coconut.

Note: For Limeade Chiffon Pie, substitute frozen limeade concentrate and tint mixture a delicate green color. For Orangeade Chiffon Pie, use orangeade concentrate and decorate with twists of thinly sliced oranges.

CITRUS FILLING

1 can (6 oz.) frozen lemonade or orangeade concentrate
1 can water
½ cup sugar
2 tablespoons flour
2 tablespoons cornstarch
2 egg yolks, slightly beaten
2 tablespoons butter

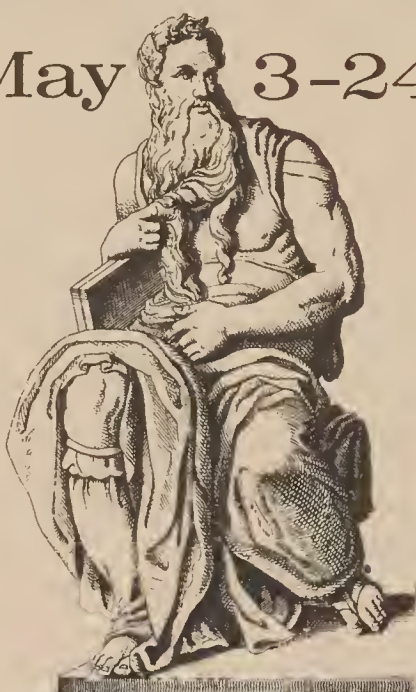
Combine frozen concentrate, water, sugar, flour and cornstarch; mix well. Cook over moderate heat, stirring constantly, till mixture comes to a boil. Boil 1 minute.

(Continued on page 41)

American Agriculturist, February, 1971

May 3-24

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So You've Always Wanted to Paint

(Part One)

by Dorothy Welty Thomas



So you have always wanted to paint. Maybe all you need to get started is a little push! This article is to help with that push — to tell you what materials to buy and how to go about painting your first picture.

Let's say you want to paint in oil. Some of the materials will be familiar, and others may be new to you. We will try to keep it as simple and inexpensive as possible. You may already have some of the materials and equipment, and you can always add more later as the need demands.

First you need some brushes—two flat bristle brushes, one about a half inch wide and one a little smaller. These will have long handles, and you will do most of your painting with them. Then you need a softer, smaller brush for painting twigs, lines, whiskers, and the like. This could be a squirrel hair brush and when wet, it should come to a fine point. It should have a long handle too.

In the beginning, you might paint on some material that looks like canvas and has a canvas-like texture but is really paper. It is fairly inexpensive and comes in pads of various sizes. Don't start with too large a sheet; it may take too long to cover it with paint.

Then you need a palette. You can use a piece of window glass which can be scraped off each time, or you can buy tear-off pads of paper for this purpose. They are fairly non-absorbent and save time cleaning a palette. You don't need an easel; use a kitchen chair to prop your painting against, with your palette resting on the seat of the chair, and you sitting on a low stool or box.

You will need some "vehicle," which is what the fluid you paint with is called. Half linseed oil and half turpentine makes a good mixture for this. You may want to put this in a cup made for the purpose, with a clip on the bottom to attach it to your palette, or you could use a custard cup. You really need two of these cups, one for the vehicle and one for plain turpentine in which to wash your dirty brushes from time to time.

A supply of paint rags is essential, although you can use towel paper. Another indispensable article is a palette knife. It is a small spatula and is used to

mix paint. Also you may want to use it to scrape off any painting which does not satisfy you.

Now we come to the paint. It isn't necessary to buy a lot of colors, but you may be as extravagant as you like. Following are the colors I feel are essential (they are permanent to light): one tube each of alizarin crimson, ultramarine blue, and cadmium yellow medium; one pound of zinc white, which may come in a tube or a can. If you want to spend more money, I suggest you buy next yellow ochre (gold), burnt sienna (red-brown), and permanent green. Also you need some charcoal for drawing and some fixative to spray on it.

If you do not have an art store in your vicinity, I suggest you write for a catalog from J. L. Hammett Co., 165 Water St., Lyons, N. Y. 14489 or Arthur Brown and Brother, Inc., 2 West 46th St., New York, N. Y. 10036.

Now that you have your materials together, you are ready to start painting. What are you going to paint? I suggest you start with a still life, which is a group of small inanimate objects such as flowers, fruit, pottery,

kitchen tools and products. Select about three objects, for example a blue bowl of eggs, an orange, and something tall like a milk carton. Arrange them in a group so each stands partly behind or in front of another. Don't string them out in a straight line.

Begin by sketching your still life in charcoal, as large as you can get it on your canvas. Even if part of it is cut off, it is better than having it too small. After you have drawn it, make a table line to show which is vertical background and which is horizontal foreground. Spray your drawing with fixative when you are satisfied with it. This will keep it from smearing as you paint.

Practice Mixing Paints

Before you begin to paint your picture, have a practice session in mixing paint. Using your palette knife, take a small bit of blue and a bit of yellow and mix them on your palette with the flat of your knife. Then add a bit of white. Try red and yellow together and add white to them. Try red, yellow and blue together; you should get either black or brown depending on the proportions. Try different combinations. Add white to black to make gray and white to brown to make tan.

Play around with the colors

until you have filled at least two sheets of palette paper. Keep what you have mixed; you may need them in your picture. There is an old saying that if you can't afford to waste paint, you can't afford to paint. This is so true, yet you really aren't wasting paint — you are learning.

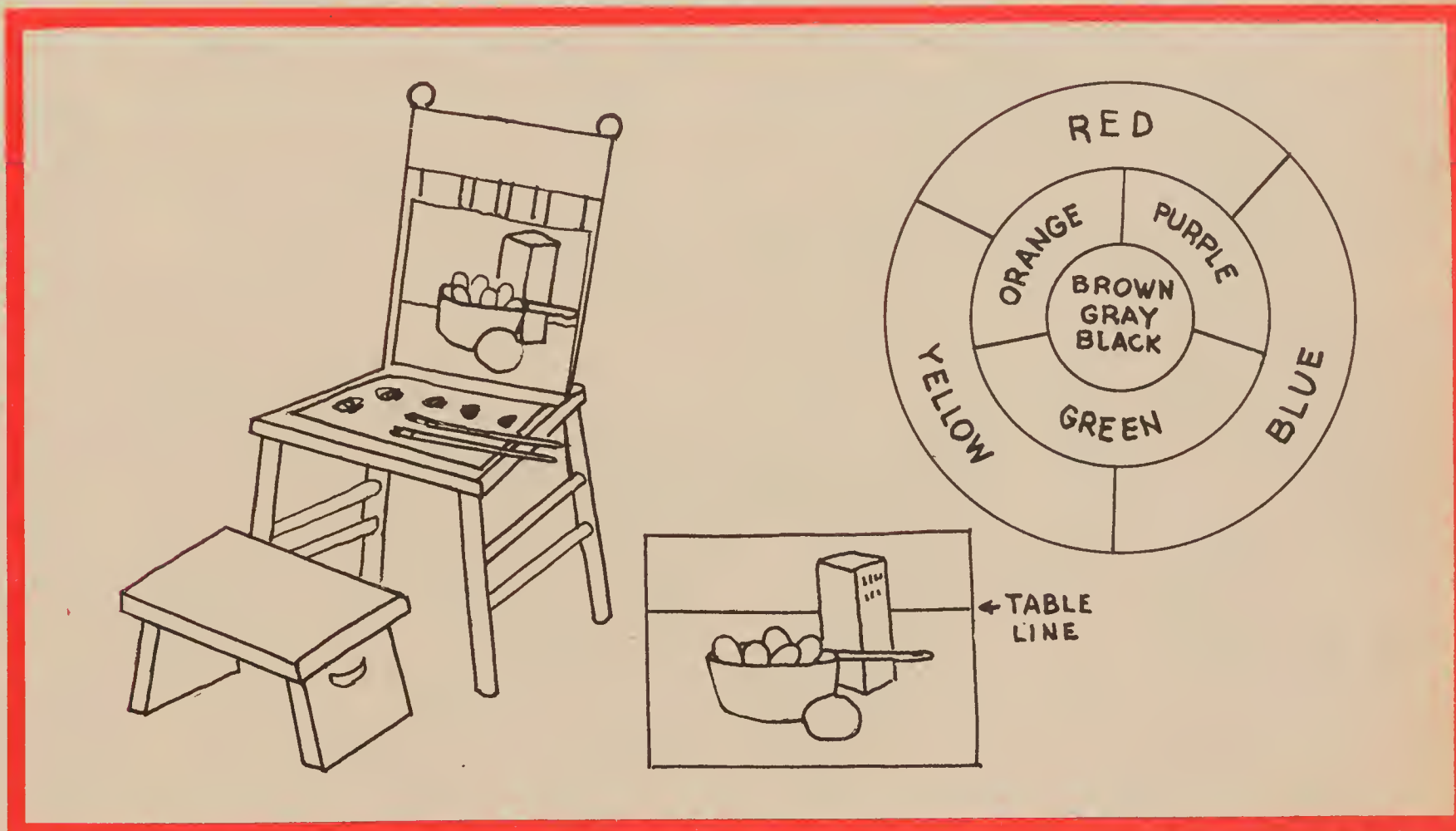
When you are ready, start painting the orange. Always use the biggest brush you can for the thing you are painting. For the orange, use the larger brush and a circular stroke around the outside; then fill in with curved strokes.

After finishing the orange, paint the bowl and then the eggs. Mix a small amount of tan and add it to a lot of white for the eggs. Divide the paint for the eggs and add a bit of blue or black to half of it. This is for the shadow side of each egg. Paint the egg all over with the light color and then shade them with the darker paint. Don't get it too dark. Use a clean brush to blend the two colors.

If the carton has letters on it, ignore them in the beginning. Paint it any color that looks well with your composition. Then suggest the letters with the small brush. Shade the orange and bowl too if you like. They will look more solid. One famous artist, Henri Matisse, never shades his still life, so suit yourself.

Paint the vertical background some soft color that will harmonize with the picture. Paint the table a contrasting color such as tan or brown. Paint several still life pictures to get practice in mixing colors and arranging shapes in pictures. The color chart will help you in mixing colors.

Always clean your palette when you are finished by scraping it with a knife and washing it with turpentine unless it is the throw-away kind. Wood palettes last for years and may be a good investment after you get started and know you want to pursue this hobby. Have fun and good luck!



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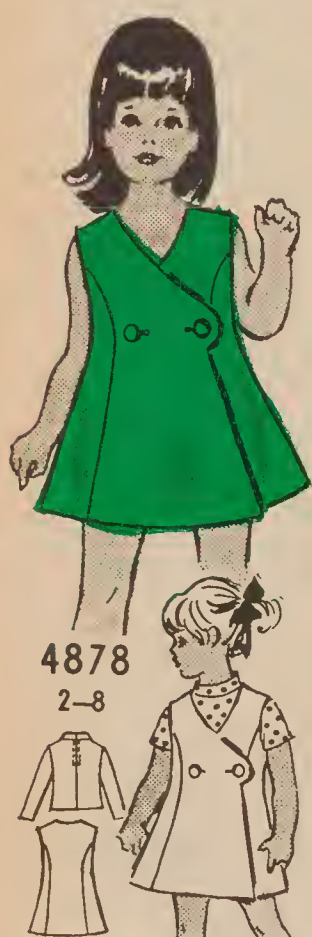
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9256 8-16
12½-24½

9060
10½-20½



4576
34-48



4802
8-18

708



9027
10½-22½



670

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the HOUSE

New automatic washers by Frigidaire feature a pressurized fill-and-rinse system which sprays jets of water through 12 openings in a circular tube at top of tub instead of from a single inlet.

Gets clothes under water faster, reducing billowing and air pockets; helps loosen imbedded dirt even before agitation begins in the tub, and provides a fast pre-rinse cool-down so important with permanent press loads.



Also, service is quick and sure on Frigidaire laundry products with easily disconnected control console and serviceman's electronic analyzer which diagnoses and pinpoints the trouble.

Citrus

(Continued from page 28)

Remove from heat and beat a little of this mixture into the egg yolks, then add to the remaining mixture and cook 1 minute more with stirring. Remove from heat, stir in butter, and cool. Use as filling between two cake layers or in cream puffs.

LIME MERINGUES

- 3 egg whites
- ¼ teaspoon cream tartar
- ¼ teaspoon salt
- ¾ cup sugar
- 3 egg yolks, beaten slightly
- ¼ cup sugar
- 4 tablespoons lime juice
- 1½ teaspoons grated lime rind
- 1 cup heavy cream, whipped
- Green food coloring

Meringue Shells: Beat egg whites until foamy, add cream tartar and salt; beat until stiff but not dry. Add sugar gradually; beating until very stiff. Pile meringue into 6 mounds about 3 inches in diameter on baking sheet covered with heavy brown paper. Make a 2-inch depression in center of each mound.

Bake in slow oven (275°) for 1 hour. Cool slightly and remove from paper with a spatula. When completely cooled, fill with Lime Filling. For a crisp meringue, fill just before serving; for a soft meringue, fill 6 to 12 hours before serving.

Lime Filling: Combine slightly beaten egg yolks, sugar and lime juice. Cook over low heat with constant stirring until thickened. Remove from heat and stir in lime rind. Cool and fold in whipped cream. Tint a delicate green with a few drops of green coloring.

American Agriculturist, February, 1971

Hand washer agitator available on 1971 Westinghouse automatic washers makes it possible to do nylon stockings, beaded sweaters and fine lingerie by machine. Agitator nests inside its heavy duty counterpart when not in use, so there is no storage problem.



Here's a stunt that is worth remembering when visiting friends, if you have a small child and no playpen or high chair is available. Just take two chairs and place one upside down on

the other. Tie the chairs together together on the back, place a pad or pillow on the seat, and you'll have a safe and comfortable enclosure in which to place the baby.



SWEET VALENTINE

by Geraldine Ross

The kind of heart I'd like . . . why hide it?

Is one with chocolates inside it!



Happy Birthday. From Tingley.

Yes. You're looking at a flapless, buttonless, straight pull-on made-in-a-mold dress boot. First of its kind for Tingley.

We made it for you. On our birthday. Our 75th birthday. Now why would the celebrant give out the presents on his own birthday? Because we know full well that we've been successful in large part because of the others in our life. Our distributors. Our retailers. And the millions of our customers in the country. And this new boot is our way of saying thank you.

We thought a long time before we made this boot. Frankly, it's somewhat counter to much of our thinking. You've heard our viewpoint many times. Our famous boot-with-the-button exemplifies it.

But great numbers of our friends in the trade have asked for a pull-on dress boot for men. With the same lightweight, rugged construction as our boot with the button. A kind of buttonless button type. So we sat down and designed this boot.

We're quite pleased. It looks fine. And we didn't have to give away a thing in terms of our standards. We even added an important feature: a heel spur you can step on to pull the boot off without using your hands. This is a boot you can take off with your feet.

It's in production now. We'll have it in volume for fall delivery. And it's handled by our good right arms — our Tingley distributors.

The price? We saved the best part for last. \$8. Retail. It's a fine boot. It gives good value to the consumer. And, like Henry's Ford, you can have any color so long as it's black.

We're proud to be 75 and our new boot is our birthday message. It means, that at 75, we're looking forward. Wait 'til you see what we're cooking up for our 100th.

So. Thank you. We couldn't have done it all without you.



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GARDEN TALK



by Doc and Katy Abraham

Starting Seeds

It will soon be time to start seeds of "slow-growers," such as salvia and petunias to name a couple. Why is it that good fresh seed sometimes just doesn't start? Many like to blame the seed company for selling them bad seed, but don't blame the firm. It wouldn't stay in business long if it made a practice of selling bad seed.

In most cases lack of success is due to poor cultural conditions. These include:

1. **Light.** Light is not necessary for germinating seed, but as soon as seed has sprouted, it should be moved to full light.

2. **Temperature.** Most seeds like ample heat (72° F.) for germination, but a higher temperature will cause a lot of spindly growth. After seedlings appear, about 60° to 65° is ideal.

3. **Soil Mixture.** Seeds do not need a rich soil for germination, in fact, the lighter the mix the better. The "peat-lite" soil-less mixes recommended by Cornell University, and used by many commercial growers, have many advantages. The ingredients are sterile, and this helps cut down on damping-off disease. Try using these "instant soils" this year when sowing your seed.

4. **Sowing the Seed.** Do not sow seeds, especially fine ones, too thickly. They can be at least 1/8 inch apart. Also, do not cover seed too deeply. Fine seed, such as petunias, snapdragons, etc., has little "pushing up" power and will rot before it can germinate if covered too deeply.

Sow thinly, either broadcast or in rows, and omit covering if seed is fine. Just press it into the soil. Coarse seeds can be covered with vermiculite, sifted muck, pulverized peat moss, or "rubbed" sphagnum moss. After the seed has been sown and watered, cover the seed flats or boxes with a pane of glass or plastic sheet. This prevents the soil drying out.

Check the flats each day to see if any mold has formed or if the surface is dry. If a whitish mold is found, it means not enough air circulation or too much moisture. Never let sprouting seeds dry out. One drying can be fatal to the germinating seed. Commercial growers syringe their seed flats regularly, using a fine mist sprayer.

5. **Seedling Care.** As soon as the seedlings pop up, remove the glass or plastic sleeve and place the seeds in full light. Seedling plants are 95 percent water, and they need lots of light as well as air circulation.

6. **Transplanting Seedlings.** When the seedlings are about 1 1/2 inches high, they should be transplanted into other boxes or pots. Space them 2 inches apart each way. More and more gardeners are starting seeds in the Jiffy Pellets or peat pots.

Everbearing Red Raspberry

Several people have asked me which is the best everbearing red

raspberry. This is like asking which is the best automobile! Whenever you recommend varieties, you're bound to hit a snag, mainly because varieties change constantly. Also, culture and location have a lot to do with success of a variety.

A variety that's favored by one person could be despised by another. We still have people asking us where they can buy John Baer or Bonnie Best tomato seed. Both varieties were good in their day, and apparently some people still prefer them.

Getting back to the everbearing red raspberry, John Miller of J. E. Miller Nurseries in Canandaigua, New York, thinks **Fall Red** is the best everbearer to date. Fall Red ripens its second or fall crop two to three weeks earlier than most varieties. The regular or first crop ripens the latter part of July. The second crop starts anywhere from August 10 to 15, and from then until killing frost, the bushes are loaded.

Incidentally, if you want a bumper crop in the fall, here's what Ed Miller tells his customers to do. In November, after the plants are dormant, cut off all growth to within 2 or 3 inches of the ground. This eliminates most of the work in raspberry growing, such as pruning, trimming, and all fungus disease that might be carried over in the canes. In the spring your plants will make a lot of growth, and all the vigor and vitality goes into producing a bumper crop. This crop is borne in large clusters on the tips of the new canes.

Note: Do not apply this method to the one-crop varieties, such as Latham or Taylor, or you will get no crop at all.

AA Garden Clinic

A reader writes, "Our purple passion plant is tall and spindly. What can be done?"

Answer — These plants get that way if you don't prune the tips periodically. Purple passion is also called "Purple Velvet," and it likes a bright window. Best soil for Gynura is a mixture of sand, peat and loam in equal parts. If you see aphids on the plant, spray with malathion or wash leaves in a bucket of soapy water.

WEATHER HAPPY

by Dixie Thompson

Grandpa rises first of all

His weather glass to see.

Then he spends the whole day long
Forecasting weather for me.

He tells me when it's going to rain
And when the snow will fall;

His glass has never failed him yet,
He boasts to all who call.

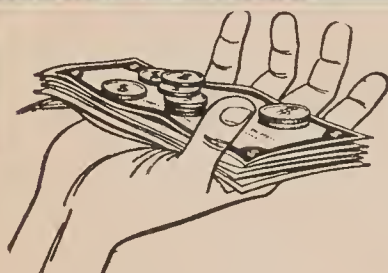
Oh Lord, when I am old and grey,
Grant me some other pleasure,

So I'll have something on my mind
Besides the blasted weather.

American Agriculturist, February, 1971

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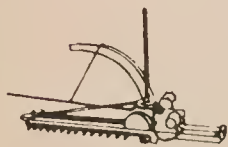
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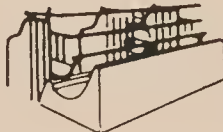
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CHAROLAIS

CIRCLE B FARM purebred Charolais—February monthly roundup. Last year we stressed the Charolais Cross and how it could stop your market loss. The results you've seen in grade and pounds, should be enough to give you grounds for considering a start toward some purebred, so you'll have not one, but two incomes instead. It costs no more for room or feed, but the income per head is higher indeed. If you have youth with knack and flair for showing at sales and the county fair. Just what could be better for your child's ambition than the sport of good, stiff competition? It's good for them all to have fun and learn as well as the work it takes to earn. So our advice all year will certainly be—come buy some Charolais at the Circle B. Phone 716/928-1118—Little Genesee, N.Y. 14754.

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WRITE FOR FREE 1971 catalog on Virginia State inspected vegetable plants including Hybrid cabbage, tomato, cauliflower, sweet pepper, hot pepper and other vegetable plants. We will also grow plants from your seeds. Contact us early so that you will be assured of the varieties and quantities of plants you will need. Plants shipped Air Freight, bus, United Parcel Service, mail or we can load your trucks at the farm. Dixie Plant Company, P. O. Box 327, Franklin, Virginia 23851. Telephone 703-562-5276.

ASPARAGUS ROOTS—Newest improved New Jersey strain of Mary Washington asparagus. Rust-resistant, high yielding with large spears. Free catalog. Lewis Farms, Inc., RFD, South Deerfield, Massachusetts 01373.

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CERTIFIED OZARK BEAUTY everbearing strawberry plants \$7.00 each 100. Empire, Premier, Sparkle, Vesper \$4.00 each 100. Red raspberry plants, Latham, Indian Summer. New Madawaska \$10.00 each 100. Add 95¢ to each 100 for postage. MacDowell Berry Farm, Ballston Lake, New York 12019. Phone 877-5515.

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From the country's largest specialists . . . we grow nothing but strawberries . . . all types . . . all varieties. Our new catalog describes best growing methods . . . contains many helpful hints. Write today. It's free. W. F. Allen Company, 11F Strawberry Lane, Salisbury, Md. 21801
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SAWDUST AND SHAVINGS in carload lots. Also Kiln dried soft wood in compressed bales. Compressed bales in paper bags, delivered in truck loads or car loads. Bono Sawdust Co., 33-30 127 Place, Corona 68, New York. Telephone HI-6-1374.

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SILOS—Factory Creosote Treated Wood. Less frozen ensilage and absolute acid resistance. Dependable lock doweled wind-resistant construction. Immediate delivery. Box BS-21, Unadilla Silo Co., Unadilla, N.Y. 13849.

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FREE TROJAN SEED CORN BOOKLET and 1971 price list on all types of farm seeds and baler twine. Write Carlton Seed Company, Dept. AA-71, 101 Meade Avenue, Hanover, Pennsylvania 17331.

RARE SEEDLIST, packet red sunflowers 25¢. Wade Birchfield, Box 3016A, Asheville, North Carolina 28802.

INTRODUCTORY OFFER: Seneca Chief and three other top Seneca Hybrid Sweet Corns 4 packets \$1.35 postpaid; 2 packets Summer Squash (Butter Bar and Zucchini) 70¢ postpaid. Robson Quality Seeds, Inc., 6, Hall, New York 14463.

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NO HUNTING SIGNS, Mailbox — Lawn Markers, Farm Signs, Special Signs, Printing all kinds. Sample catalog. Signs, 54 Hamilton, Auburn, New York 13021 Dept. G.

PLASTIC POSTED—Land Signs. Durable, inexpensive, legal, free sample. Minuteman, Stanfordville, New York.

ALUMINUM "POSTED" SIGNS, 24 styles. Permanent, inexpensive. Free sample. John Voss, 70AA Farley Lane, Manlius, New York 13104.

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1971 STRAWBERRY CATALOG FREE

Describes and illustrates 30 varieties, all virus-free, fully guaranteed. Choose plants suited to your taste, use and locale. Follow easy growing instructions. Send today!

Also: Blueberries, Raspberries, Blackberries, Grapes, Fruit, Nut, Shade Trees, Evergreens and Ornamentals.

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and planting guide on virus-free Strawberry plants at direct-from-grower prices. Also, lists azaleas, asparagus, blueberries, and raspberries.

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ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 370, Ithaca, N.Y. 14850.

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WANTED CHRISTMAS TREES for 1971. Scotch Pine—Douglas Fir, 6' and up. Early deposit. Lawrence Kristoff, Great Meadows, New Jersey 07838. Phone 201-637-4220.

OLD CONVERTIBLE AUTOMOBILE 1915-1936. Any condition, running or not. Or all apart. J. Fass, 5 Howell Pl., Newark, N.J. 07106.

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"HEIRLOOM TREASURES FROM ANTIQUE TRUNKS." Delightful book, many pictures, how to repair, rejuvenate, decorate old trunks for fun, profit. \$2.25 postpaid. Modway, Box 34A, Brookfield, Ohio 44403.

WEAVE RUGS—Make Good Profits. No experience necessary! Free Catalog, sample card, and low prices on carpet warp, rug filler, looms, parts, inexpensive beam counter. If you have loom—advise make, weaving width please. OR. Rug Company, Dept. X072, Lima, Ohio 45802.

WALLPAPER — SAVE HALF. Huge 1971-72 catalog — 85 selections, wallpaper 32¢ to 95¢ single roll; \$5.39 Vinyls only \$2.75. Send 10¢. Mutual Wallpaper, Dept. 32, 228 West Market, Louisville, Ky. 40202.

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PEARLS, JEWELRY, flower materials. Discount catalog 25¢. Flocraft, Farrell, Pa. 16121.

DOLLY CRIB PADS \$2.50 postpaid. Rug weaving. Jane Nagle, 1005 North Ninth Street, Barnesboro, Pa. 15714.

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ALL COLORS MIXED
100 Bulbs \$3.75
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Extra Special Value!

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Guaranteed to bloom.

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Quick-Bearing
Bigger, more colorful fruits than from big trees, right at home! Sweet-scented floral beauty in spring and all-season interest as fruits develop. They take little space.

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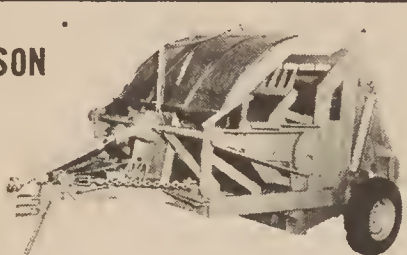
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Address.....
City..... State..... Zip.....

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25 CROWNS—covers 100 sq. ft. . . \$ 4.00
50 CROWNS—covers 200 sq. ft. . . \$ 7.50
100 CROWNS—covers 400 sq. ft. . . \$14.00
CROWN VETCH—perennial ground cover—Flowers June til frost. Beautiful, hardy, no mowing. Grows 12"-18" any climate, sun or partial shade. Chokes weeds, resists droughts. Postpaid planting time. No C.O.D. FREE COLOR CATALOG

MUSSER 83-B Indiana, Pa. 15701

Dollar Guide



ENCOURAGING MILK PRICE NEWS for 1971 comes with forecast of average of \$6.19 per hundred pounds of 3.5 milk for farmers delivering to the Massachusetts-Rhode Island-New Hampshire order. This blend price estimate, made by the New England Milk Price Forecast Committee, is close to the 1970 levels.

MAPLE OUTLOOK is the best in years, says Ray Foulds, Vermont Extension forester. "Costs of production have gone up in Canada, and there is no great supply from last year hanging over our heads."

NEW WHEAT has been unveiled by Cornell's famed plant breeder, Neal Jensen . . . who also developed Genesee, Avon, and Yorkstar varieties.

New one is called Arrow, and it has reduced height and tougher straw . . . more lodging resistance than other varieties. Seed supplies will be available for planting in 1973.

SIGN-UP PERIOD for 1971 government farm program will be from March 1 to April 9. Rules have been changed considerably from previous years, so visit your ASC office for details.

While you're there, check on major change in Agricultural Conservation Program (ACP) . . . now called Rural Environmental Assistance Program (REAP). You can expect much less emphasis on production-oriented practices, more emphasis on those practices contributing most to improvement of environment for both general public and farmers.

WHEAT ACREAGE planted in Pennsylvania in fall of 1970 is smallest on record. Major reason is better returns from corn . . . corn yields per acre are substantially above wheat, and price of corn per bushel has averaged above wheat in last two years.

GOALS of the American Dairy Association for the 1970's are clear-cut: increase per capita consumption by 25 percent . . . and finance product development and promotion to bring about this increase with two percent of producers' pay for milk.

"SILO OPERATOR'S MANUAL" . . . a wealth of information on management of silage storages . . . is available for \$9.75 per copy from the National Silo Association, 1201 Waukegan Road, Glenview, Illinois 60025.

A **READING BARGAIN** is waiting for you at Penn State's mailing room; \$3.18 will get you Prof. Donald Ace's new "Dairy Reference Manual." This 216-page book provides a wealth of dairy information for farmers, and the businessmen who serve them. Send check or money order to: Dairy Manual, Box 6000, University Park, Pa. 16802.

EARLY SIEGE of Southern corn leaf blight in 1971? We don't know yet, but one thing for sure . . . the earlier it hits, the more devastating it will be. Trials at Purdue and elsewhere will be base for predictions on the survival of the fungus in our area.

ENVIRONMENTAL CONCERN will be high for long haul, so plan carefully when building or adding to your dairy, beef, chicken or swine enterprise. A little-publicized law on the books since 1962 in New York State requires submitting plans for new poultry facilities to the Department of Health before building starts. Such laws are likely to become more common and of broader scope in the Northeast.

STRAWBERRY PLANTS GROWN UNDER RIGOROUS CULTURAL PRACTICES INDEXED VIRUS-FREE STOCK—ALL VARIETIES FOR NORTHEAST OUR 39TH YEAR

Growing strawberries has proven to be a highly profitable cash crop for full and part-time farming. Small acreage with high income potential when berries are sold for market and pick your own. Varieties are adapted to a wide range of conditions. If you are looking for extra income during June and July we suggest you try some. We will be glad to provide you with the most up-to-date growing information to help you. Write for free catalog.

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END BLOCKED TEAT TROUBLES FOR HARD MILKING COWS!

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At Your Veterinarian, Drugstore, Creamery.

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Heavy twill shirts dark colors	1.50
Lined twill jackets—36-42	3.09
Unlined twill jackets—36-42	2.00
Short counter jackets all sizes	1.00
LADIES SMOCKS—S-M-L	.59

Add \$1.00 for postage and handling. No. C.O.D. All sizes. Colors—Tan, Gray, Blue, Green, Used. Professionally laundered. Satisfaction guaranteed. N. Y. State add 3% tax.

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MAYO NURSERIES FRUIT TREE SPECIALISTS 3rd Generation of Growers.

Send 25¢ for list and prices of Fruit Trees, in quality you like.

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SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK	
Mrs. Peter Pholen, Copenhagen	\$6.99
(refund on unfilled order)	
Mrs. Reuben D. Woldron,	
Freehold	18.80
(refund on unfilled order)	
Mrs. Roscoe King, Afton	6.95
(refund on book)	
Dr. Andrew D. Kerr, New York	21.75
(refund of overpayment)	
Mrs. Hildo Weiler, Constobleville	13.05
(refund on order)	
Mr. Howord R. Bishop, Worcester	3.58
(refund on sproyer)	
Mrs. Josephine Molcolm,	
Newburgh	11.31
(refund on plants)	
Mr. Curtis Pooler, Rodmon	6.26
(refund on shoes)	
Miss Julie Longtry, Conton	11.00
(refund on subscription)	
Mrs. George Rondoll, Hornell	10.00
(refund of deposit)	
Mrs. Horold Burker, Lowville	12.38
(refund on plants)	
PENNSYLVANIA	
Mr. W. J. Lewis, Bushkill	84.60
(refund on ports)	
Mr. T. Leppo, New Oxford	8.73
(refund on books)	
NEW HAMPSHIRE	
Mrs. F. J. Getchell, Hillsboro	8.41
(refund on plants)	

NEW LAWS

New York State is barring out-of-state insurance companies from advertising or operating a mail order business unless they obtain licenses

from the New York State Insurance Department.

This new law, which was effective September 1, 1970, is intended to protect New York consumers from financially unsound insurance companies that solicit business by mail from out of the state. The measure will enable the Department to regulate these companies under the same requirements and inspection to which in-state insurance companies are now subject.

Should you, as a resident of New York State, receive advertising from an out-of-state insurance company and you are not sure whether the company is licensed in New York State, we suggest you send the solicitation and the original envelope, postmarked after September 1, to the Complaint Department, New York State Insurance Department, 324 State Street, Albany, New York 12210.

o o o

The unsolicited circulation of credit cards to New York State residents now constitutes a misdemeanor as the result of a law recommended by Attorney General Lefkowitz, and which became effective on October 1, 1970.

The new law provides that a credit card may be forwarded to a consumer only when it is requested in writing. It also provides that in any action for goods sold and delivered, or services rendered on the basis of a credit card transaction, it shall be a complete defense for the person in whose name the card was issued to indicate he did not authorize the issuance of the card in writing and did not otherwise authorize its use.

The above does not apply to cards issued prior to October 1, 1970, or to renewals or replacements of unauthorized credit cards issued prior to that date and subsequently accepted by use.

o o o

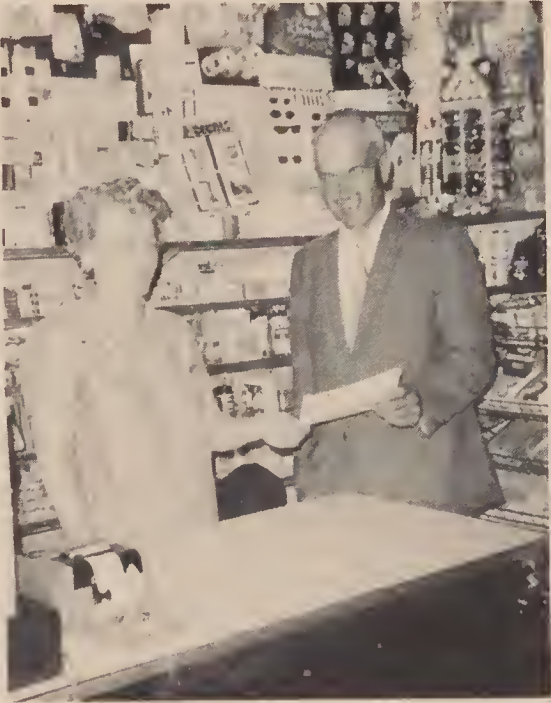
A new law, aimed at high-pressure door-to-door salesmen, became effective in New York State on September 1, 1970. The law provides for a three-day "cooling off" period during which time a consumer may cancel a contract for the purchase of goods or services sold to him by a door-to-door salesman.

Attorney General Louis J. Lefkowitz said, "Investigation by my office has disclosed that the elderly, the busy housewife, the uneducated and those with language difficulties are frequently the targets of door-to-door salesmen.

"Without adequate warning and without time to consider the seller's proposal, many buyers have found themselves legally committed to the purchase of goods and/or services which they did not need or cannot afford. For this reason, it is only fair that such unsuspecting buyers be given some time to consider proposals made by such sellers under such circumstances."



Local agent Mark Prindle of Charlotte, Vermont has been bringing North American protection to many Vermont families during the past two years. Here are two who have recently received North American benefits.



INJURES
HIP IN FALL
DOWNSTAIRS

Flora Bovat of West Berkshire, Vt., receives \$544.99 from Mr. Prindle providing disability income and medical expense benefits. This was especially helpful since Mrs. Bovat had to hire extra help in the store during her recovery.



MULTIPLE
INJURIES IN
AUTO ACCIDENT

Marie Brouillette of Sheldon, Vt. receives \$780.18 for disability income and medical expense benefits. She has since increased her protection and that of her husband and three children.

OTHER BENEFITS PAID
A friend's name may be in this list.

Clyde Gross, Cuba, N.Y.	\$ 215.71	Mary Yuhas, Manlius, N.Y.	\$ 154.29
Car slipped off jack—broke ribs		Slipped—inj. knee	
Herbert Underwood, Lisle, N.Y.	315.00	Marion H. Beebe, Holley, N.Y.	222.68
Fell against wagon—inj. shoulder		Auto accident—cut elbow	
Chester Dewey, Perrysburg, N.Y.	385.86	David Bristol, Altmar, N.Y.	194.08
Knocked down by cow—inj. shoulder		Caught in elevator—inj. hand	
Larry Frank, West Valley, N.Y.	463.70	Gordon Dickinson, DePeyster, N.Y.	882.62
Auto accident—cut forehead		Struck by bale—broke leg	
Iva Brooks, Weedsport, N.Y.	904.00	Nora Fleury, Winthrop, N.Y.	137.14
Auto accident—broke leg		Pipe fell—broke foot	
Alfred Hatfield, Moravia, N.Y.	338.58	Emma T. King, Sharon Springs, N.Y.	422.14
Attacked by bull—broke ribs		Fell down steps—broke wrist	
Richard Warnshuis, Sherman, N.Y.	165.00	Arthur R. Turner, Hornell, N.Y.	963.04
Kicked by cow—inj. hand		Fell from tree—mult. bruises	
Alfred J. Deakin, Westfield, N.Y.	390.74	John A. Socola, Prattsburg, N.Y.	471.40
Fell from horse—broke ankle		Auto accident—inj. shoulder, leg	
Rosa Hohl, Oxford, N.Y.	143.27	Arthur Simons, Sr., E. Lockwood, N.Y.	113.57
Slipped in driveway—broke arm		Snowmobile acc.—broke leg	
Clarence Jarvis, Ellenburg Depot, N.Y.	300.00	Paul J. Racht, Owego, N.Y.	682.71
Hit by tractor—broke arm		Hit by falling ice—cut ear	
Robert Robbins, Cortland, N.Y.	1,817.86	Audrey M. Palmer, Locke, N.Y.	253.00
Tractor tipped over—broke pelvis		Attacked by cat—cut hand	
Mary Monostori, Willet, N.Y.	861.40	Louis E. Ouell, Walworth, N.Y.	1,000.00
Hot water spilled—burned feet		Slipped on ice—broke knee	
Steven Banks, Franklin, N.Y.	1,225.72	Virginia A. VanderBrook, Marion, N.Y.	197.14
Tractor accident—inj. knee, elbow		Slipped off farm truck—inj. leg	
William Youmans, Delhi, N.Y.	131.42	Anna Hermetet, Sodus, N.Y.	306.41
Using power saw—cut finger		Hit by tree limb—inj. arm	
Marie Ballard, Eden, N.Y.	1,197.25	Richard K. Kaczmarek, Attica, N.Y.	1,630.00
Slipped and fell—broke ankle		Auto accident—broke thigh	
Joseph P. Morgano, Jr., Brant, N.Y.	141.14	Ethel Hey, Penn Yan, N.Y.	116.20
Playing basketball—inj. ankle		Fell from ladder—inj. foot	
Claude Ouellette, Keeseville, N.Y.	120.00	Hugh Jackson, Elkland, Pa.	995.70
Thrown from tractor—inj. knee		Tractor acc.—cut hand, broke thumb	
William F. VanNamee, Johnstown, N.Y.	445.00	Thomas L. Heim, Conneautville, Pa.	699.80
Motorcycle acc.—mult. inj.		Slipped on ice—inj. elbow	
Donald Gary Richards, Little Falls, N.Y.	242.12	Maynard Douglas, Pleasant Mount, Pa.	778.63
Knocked down by heifer—inj. shoulder		Kicked by bull—broke wrist	
Oorothy Oekin, Carthage, N.Y.	517.80	Russell E. Smith, Stewartville, N.J.	114.28
Fell off stool—inj. neck		Fell from ladder—broke heel	
Leslie A. Lehman, Gouverneur, N.Y.	670.00	W. Peter Staats, Somerville, N.Y.	781.56
Caught in pulley—cut hand		Caught in chopper—inj. hand	
F. Howard Culbertson, Dansville, N.Y.	247.70	Lenore Pocknell, Allentown, N.J.	334.00
Roof collapsed—inj. back		Slipped on ice—broke leg	
Carlene J. Palmer, Georgetown, N.Y.	376.00	Charles R. Baird, Lancaster, Mass.	250.00
Auto accident—whiplash		Fell from wagon—broke wrist	
Willard Jacobs, Hilton, N.Y.	250.00	Donald F. Smith, Canaan, N.H.	140.00
Slipped and fell—inj. thigh		Caught in chain fall—inj. hand	
Elva J. Oygert, Canajoharie, N.Y.	897.11	Norton E. Thurber, Vergennes, Vt.	222.85
Fell while walking—inj. hip		Slipped off tractor—inj. leg	

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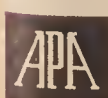
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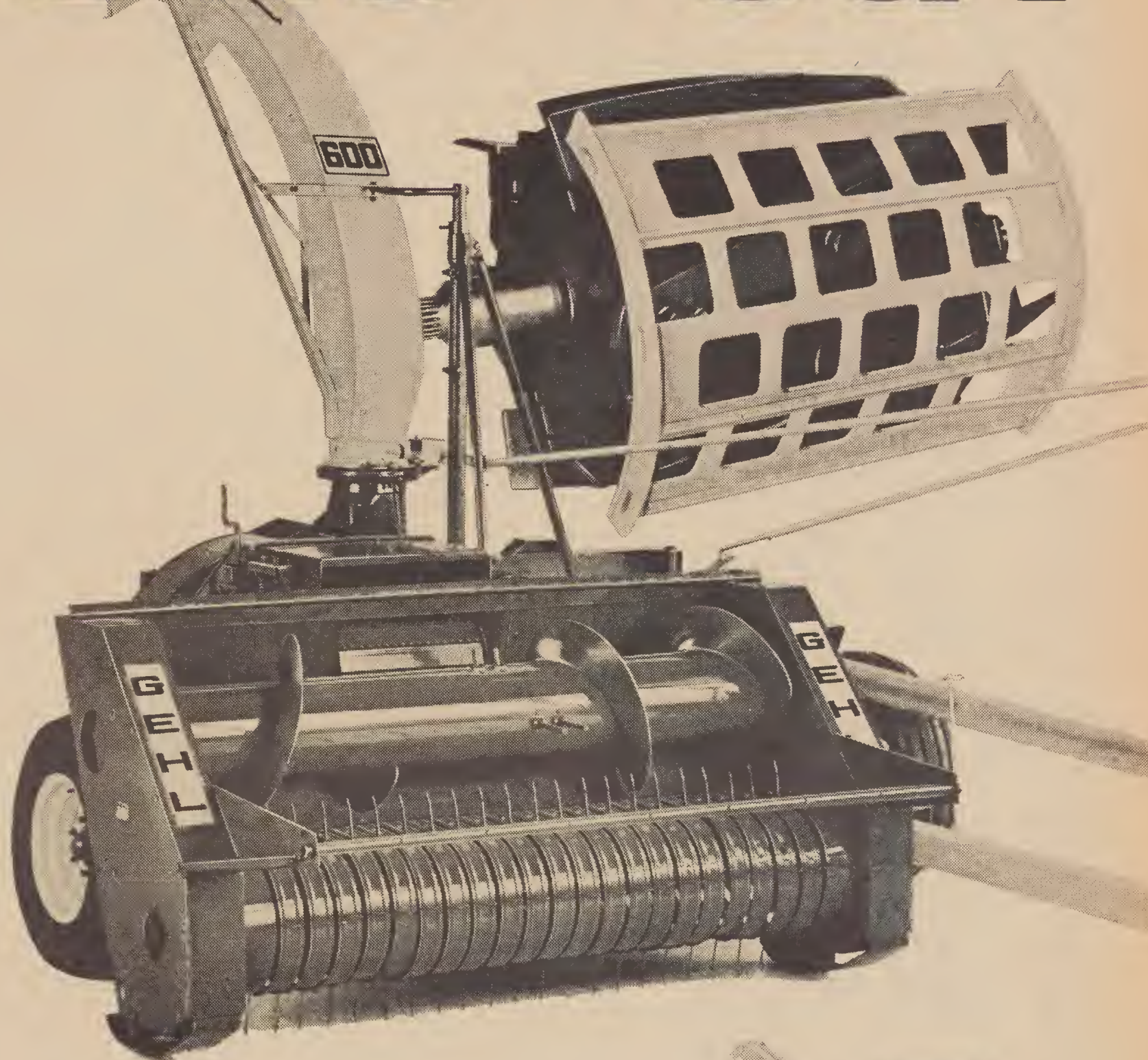
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OUR COVER

Sugaring is a family affair at the Robert Watson farm near LaFayette, New York. The Watson children shown are: Carol (on trailer), Greg (pouring sap), and Kurt (holding gathering pail). Photo: Joseph Albino

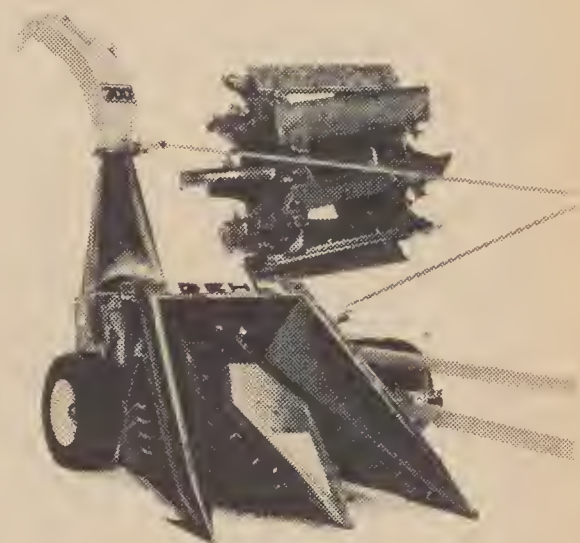


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EDITORIALS

by GORDON CONKLIN



THE OLD ROCKY CROSS

Frankly, I distinctly do **not** cherish the Old Rocky Cross upon which I am being crucified along with my fellow New York State taxpayers! New York Staters are already the most heavily taxed per capita of all the people in these United States . . . yet Mr. Rockefeller has asked that their tax tab be increased in a single year by an amount equivalent to \$60 per person! And this request rubs a massive dose of salt in wounds already opened by the fantastic construction costs of a memorial pyramid in Albany officially called "The Mall." The spelling of this colossal bit of boondoggling isn't right; "The Maul" would be more appropriate.

Fellow citizens of the Vampire State, our blood supply will plumb run out if we lie still! Beat on your legislators with a flood of letters, telephone calls, and personal visits. Go to Albany and protest . . . the welfare recipients do in large numbers . . . and they get results . . . wow, do they get results!

If we were younger, I suppose we who pay the bills of society might engineer a tax-return burn. But the privilege of living in our country demands corresponding responsibility . . . by seeking responsiveness to our pleas through the political system, rather than by irresponsible avoidance of the troublesome issues involved.

When you write your legislators, enclose a tea bag. This will remind them that the history of our nation includes a stirring chapter about America's first tax protest at Boston Harbor . . . and will make the point that there is a limit beyond which taxpayers will not be pushed!

THE CONSTRUCTIVES

Hardly a day passes but what I see evidence of vandalism somewhere . . . a puzzling and frightening symptom of destructive rebellion in our affluent society. The Destroyers have become heroes to at least a small portion of our populace, reinforcing the historians' warning that affluence bears within itself the seeds of its own destruction. Edmund Burke said about them long ago, "Something they must destroy or they seem to themselves to exist for no purpose!"

Amidst a troubled time, it is refreshing to remember that most folks still march in the ranks of The Constructives. An example was called to my attention recently by 4-H agent Charles Buck of Hillsboro County, New Hampshire.

He told me of the generosity of Mrs. John Peabody of Valley Farm at Hancock, New Hampshire. The intricacies of beekeeping are taught to local boys and girls . . . and their horizons of understanding are immeasurably broadened thereby.

Take heart, friends, there are millions of people doing a similar unheralded job of cementing our society together!

PRETTY PLUSH?

Received a meeting notice recently from Dairy Research, Inc., (DRINC). One item therein told of a directors' meeting at the Shamrock Hilton Hotel at Houston, Texas . . . and the other gave notice of the organization's annual meeting on April 8, at the Americana Hotel at Miami Beach, Florida.

As I visit with dairymen, I hear some griping that the only people who get a good deal from milk promotion and dairy product development

are the promoters and the developers. A few even go on to say that it's a bit like the government poverty programs that cure poverty, all right, but mainly for those administering them!

Frankly, I don't buy that argument . . . at least as it concerns farm organizations. However, to what extent does apparent high living jeopardize dairy farmer support of milk promotion deductions?

Maybe, in our affluent society, the day is long gone when dairymen should expect the folks of ADA, NDC, DRINC, DDI, and others to meet at any place less than the best.

Furthermore, maybe lay leadership would not accept unpaid (or low-paying) positions of great responsibility without the fringe benefits of working . . . and playing . . . at some of the plush hostilities of the land.

What do you think?

AG RESOURCES COMMISSION

The Agricultural Resources Commission, under the chairmanship of Russell Billings, is seeking to involve agriculture in planning activities at all levels of government in New York State.

Although farmers own 40 percent of the land in the state, they possess only a tiny sliver of the political clout in a highly-urbanized and industrial area. Even though small in numbers, farm people create an enormous economic contribution to the State's business activities . . . a billion dollars worth annually of farm products, that become multiplied several times in dollar volume before reaching the ultimate consumer.

There appears to be widespread agreement that the Empire State needs a viable agriculture for its economic health . . . and as a way to preserve tax-paying open space. However, the specifics of just how to do the job are not widely agreed upon. Present-use taxation, the designation of agricultural districts, and other proposals have all been discussed . . . and each one would have far-ranging impact upon farmers and farming.

If you want to know more about the ARC . . . or if you want to express yourself concerning how to keep a dynamic agricultural industry in the State . . . contact William Bensley, Executive Director, Building 8, State Campus, Albany, New York 12226.

SUBSTITUTION

I visited with a poultryman recently who told me confidently that he is in the process of implementing long-range plans for a business of 90,000 layers . . . raising all pullets for replacement of that flock . . . and growing 250 acres of crops to help feed the hens. Well, that's a sizable business, you'd agree . . . but not sensational.

The sensational part was that he believes the whole outfit can operate with a labor force of two men! He allowed as how, though, that it would also require gobs of capital.

The New York State College of Agriculture has prepared a series of reports from a project called "Toward the Year 1985." Number 14 of that series contains figures on the capital to be required, and the labor force expected, in New York's farming in years to come. By 1985, the total labor force on New York's farms is predicted to number only 47,000 . . . down from the 122,000 in 1965. Capital investment in 1965 in New York's farms was \$3.8 billion . . . predicted to rise to \$6.4 billion by 1985.

Some arithmetic will reveal another figure of interest. In 1965, the average investment per farm worker was \$31,000. By 1985, this figure will rise . . . say the experts in agricultural economics . . . to \$135,000 per worker.

Farmers . . . stay on the right side of your credit supplier!

TAKE A BREAK

A Cornell publication entitled "Accidents in Agriculture" presents figures drawn from a 1969 survey of 1,787 commercial farms in the Empire State.

An interesting finding was that farm accidents are concentrated between 10 a.m. and 11 a.m., and again between 3 p.m. and 4 p.m. A coffee break . . . drink switchel if you prefer . . . in the middle of each half-day work period is advisable.

Farmers have traditionally scoffed at the non-farm worker's pause at the "calorie cart" and coffee dispenser. But getting the job done with the doers in one piece is more important than taking pride in working without letup!

CONFUSING

Amidst all the hue and cry about pesticide residues, I suspect massive indifference will be the fate accorded a report prepared by Messrs. Frazier, Chesters, and Lee at the University of Wisconsin.

These researchers tested 34 soil samples . . . originally taken in Wisconsin between 1909 and 1911 . . . then stored in tightly-sealed glass jars until 1970. The soil scientists wondered what a test of these samples . . . gathered long before the era of modern chemistry . . . might reveal when tested for pesticide residues.

Sure enough, 32 of the samples did indeed show apparent residues of BHC (benzene hexachloride), aldrin, and endrin . . . in spite of the fact that none of these compounds were even being manufactured at the time the samples were taken! The researchers explained by reporting, "The 'apparent' insecticide residues in the soil arise from indigenous compounds which display chromatographic characteristics similar to a particular organochlorine insecticide."

Translated, I think this means that soil can do you dirt unless you're an expert at reading the gas chromatograph! Not everyone with access to one of those gadgets should be allowed to yell "wolf" until others have confirmed that the flock is in danger!

The report appears in Vol. 4, No. 2, of the Pesticides Monitoring Journal . . . and the work was done at the Department of Soil Science, University of Wisconsin, Madison Wisconsin, 53706.

THAT REMINDS ME . . .

A beef cattleman was delivering a big load of cattle to market. On the way, he stopped at a diner for some sustenance.

Just as the goodies were delivered, the door of the diner burst open before the onslaught of three Hell's Angels types . . . Iron Cross medals around the neck, leather jackets, and all.

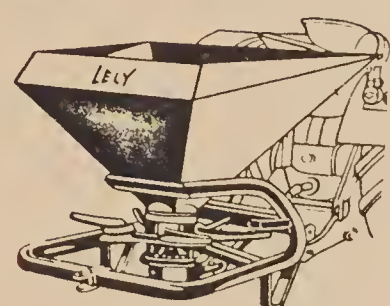
The cattleman was just ready to begin his meal, but one of the tough guys grabbed his hamburger, another started drinking his coffee, and the third shouldered him aside.

The farmer didn't say a word, just paid his bill and walked out.

One of the bully boys turned to the waitress and sneered, "He isn't much of a man, is he?"

The waitress was looking out the window and replied, "Nope . . . and he isn't much of a truck driver, either. He just ran over three motor-cycles!"

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Dates to Remember

Mar 1-2 - Dairy Cattle Breeding Conference, Cornell University, Ithaca, N.Y.

Mar. 1 - Farmers' Federal Income Tax deadline (unless estimated tax return filed).

Mar. 8-13 - Builders and Garden Show, Farm Show Building, Harrisburg, Pa.

Mar. 10 - New York State Roadside Marketing Meeting, Holiday Inn, Batavia, N.Y.

Mar. 10-11 - Annual Meeting Purebred Dairy Cattle Association, Cleveland, Ohio.

Mar. 20 - Yorkshire Sale, Farm Show Building, Harrisburg, Pa.

Mar. 22-24 - Annual Meeting National DHI Association, Penn State University, University Park, Pa.

Mar. 23 - Cider Makers Meeting, Food Science Building, Geneva, N.Y.

Mar. 25 - Agricultural Leaders Forum, Cornell University, Ithaca, N.Y.

Mar. 25-26 - 24th National Conference on Rural Health, Marriott Motor Hotel, Atlanta, Ga.

Mar. 27 - New York Hereford Association Spring Sale, Livestock Pavilion, Cornell University, Ithaca, N.Y.

Mar. 27 - New Hampshire-Massachusetts Sheep Meeting, Simpson's Pavilion, Dover, N.H.

Mar. 27 - Landrace Sale, Farm Show Building, Harrisburg, Pa.

Mar. 30-Apr. 2 - Farm Electrification Council Meeting, Cornell University, Ithaca, N.Y.

Mar. 30-Apr. 3 - Recreational Vehicle Show, Farm Show Building, Harrisburg, Pa.

Mar. 31 - Second Biennial Livestock Day, Penn State University, University Park, Pa.

Apr. 1-2 - Northeast Dairy Conference, Syracuse Hotel Country House, Syracuse, N.Y.

Apr. 2-4 - Annual Franklin County Maple Festival, St. Albans, Vermont.

Apr. 5-9 - Farm Animal Reproduction and Artificial Insemination Short Course, University of Connecticut, Storrs, Conn.

Apr. 14 - New York State Holstein-Friesian Sale, Bergen, NY.

Apr. 15 - Federal Income Tax Return deadline (non-farmers).

Apr. 15 - New York State Black and White Show, Cortland, N.Y.

Apr. 16-17 - Holstein Calf Sale, Farm Show Building, Harrisburg, Pa.

Apr. 17 - Pennsylvania Holstein-Friesian Association Calf Sale, Harrisburg, Pa.

Apr. 18-23 - National 4-H Conference, Washington, D.C.

Apr. 23-24 - Vermont Beef Cattlemen's Short Course, University of Vermont, Burlington, Vermont.

Apr. 24 - Annual Schoharie Co. Maple Festival, Village Green, Jefferson, N.Y.

Apr. 24 - National Trotting Pony Sale, Harrisburg, Pa.

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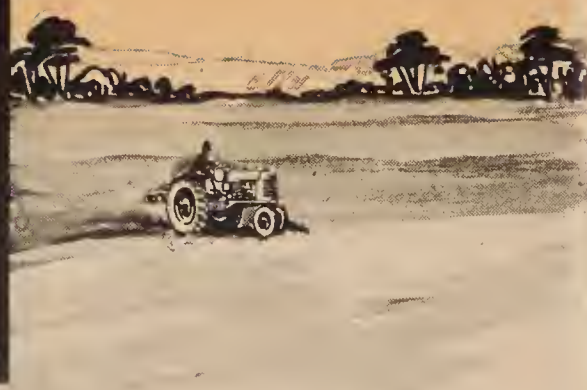


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What's NEW in the FIELD

by W. D. Pardee*



WITH the March winds blowing and the kitchen warm, it's a good time to plan your herbicide purchases for the spring that's bound to come. To help your choice, we've compiled some suggestions.

Since I work closely with Bill Duke, weed specialist from Cornell, I have relied heavily on his ideas for these recommendations, but also brought in ideas and suggestions from Pennsylvania and other northeastern states. Cornell, Penn State and several other northeastern experiment stations have strong weed research programs. They base their recommendations on first-rate research trials and on farmer experience.

Chemicals are checked for effectiveness on weeds as well as for safety to crops, humans, and livestock. And nowadays we also screen against pollution potential. Those recommended below pass all tests with flying colors and seem the best bets for this coming spring.

Talk Weeds

Before talking chemicals, let's talk weeds. Most herbicides kill some weed species, but miss others. For profitable control, be sure you put the right chemical on the right weed. You can't kill crabgrass with atrazine, nor quackgrass with 2,4-D. Money spent for the wrong chemical is money down the drain.

Quackgrass

Quackgrass is the major weed problem in corn over much of the northeast. Best chemical on quackgrass is atrazine, normally sold under the trade name Aatrex. The best place to clean up quackgrass with atrazine is in corn. If it's a real problem, a split application is best, which includes the following steps: The first year, put on a pre-plow application of atrazine in the fall or early spring. Then add a pre-emergence application after planting, but before the corn comes up.

For best results, spray atrazine on the quackgrass sod when it's 4-6 inches tall before plowing. Use about 2 lbs. of atrazine (active ingredient) per acre. Add a half-gallon per acre of an oil like Booster +E, one brand that has done well for us. The oil helps spread the herbicide over the weed leaf surface, permitting better penetration and kill.

After spraying, wait 5-14 days, then plow. There's no need to wait until you see leaf damage on the quack. The chemical is inside and working. Plow and fit the ground, then plant corn. Now apply atrazine at 2 lbs. per acre before the corn comes up. Then plan on cultivating your corn to finish off the

quackgrass and clean up any annual grasses or other weeds.

The key to complete quack kill comes in the second year. Best bet here is a mixture of atrazine at 1 lb. per acre and Lasso at $1\frac{1}{2}$ lbs. Spray this on as a pre-emergence application, before the corn comes up. This gives first-rate control of left-over quackgrass, most broadleaf weeds and it also catches the annual grasses that atrazine alone can't get. This mixture is particularly good on fields where you plan to sow oats, alfalfa or other atrazine-sensitive crops the following year.

Best All-Round

In fact, this atrazine-Lasso combination seems to be the outstanding herbicide mix for general use on corn in 1971. Applied at the rates above, this gives first-rate control of most troublesome weeds. Atrazine gets the quackgrass and many broadleaf weeds; Lasso does a good job on witchgrass, crabgrass, foxtail, and fall panicum. The mixture of the two makes a first-class broad-spectrum weed killer.

Most atrazine comes as a wettable powder, and needs good tank mixing for even application. You'll have poor results from atrazine, or any wettable powder, if you do not have good agitation in your tank.

Never put more atrazine mix in your tank than you can use up in one continuous spraying. Substantial atrazine can settle out over a lunch hour. Overnight, you'll have nearly complete settling and you'll have difficulty bringing material back into suspension from the bottom of the tank. In any tank of atrazine, be sure your agitation is good and that it keeps moving.

Nutsedge

Nutsedge is an increasing problem on many northeastern farms. Sutan, new on the market 2 years ago, gives excellent control of nutsedge, as well as annual grasses. Particularly promising has been the combination of Sutan plus atrazine before planting.

Sutan evaporates quickly, must be disced into the soil within 30 minutes after application or you'll lose its effect. Be sure to wait until the soil is dry before applying.

We've talked to farmers, extension agents and field men on this practice and they report that Sutan normally does a fine job. When it fails, it's usually because somebody missed one of the following rules.

1. Spray the Sutan and atrazine mix on a dry soil surface. Sutan evaporates quickly, within 30 minutes after application. If it combines with water that's drying from a moist soil surface, it evaporates even faster.

2. Disc immediately after spraying

(Continued on page 8)

*Departments of Agronomy & Plant Breeding
New York State College of Agriculture at Cornell University



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Our new knotters handle variations in twine without missing a tie. Why wait?

Weed Killers

(Continued from page 6)

Sutan to mix the chemical into the soil before it has time to evaporate. Even on a dry soil, you've only got 30 minutes. Some farmers have rigged chemical applicators right ahead of their discs. Others use two tractors, one spraying, one discing. Just be sure your man on the sprayer doesn't get in a hurry, and get too far ahead of the disc.

3. Remember that it takes *two* discings with a tandem disc to incorporate Sutan. After your initial discing, turn back and disc again crosswise. This means one good east-west discing, then another north-south, or whatever directions fit your field. Once over just won't do the job. It gets the chemical into the soil,

but the stuff lies in bands. Weeds come up in strips between these bands. By mid-summer, you may never know you sprayed. The crosswise discing gives you the thorough mixing you need for good weed control.

Please note that weed experts specify a *disc*. "Drags" or spring tooth harrows move the soil around a lot, but don't do much mixing. We've talked to a few farmers who report success this way, but most tell us they've had poor luck using anything other than a disc — and so have we.

Broadleaf Weeds

If your big problems are pigweed, lambsquarters, or other broadleaf weeds . . . and you don't expect grass

troubles . . . you may wish to stick with old faithful 2,4-D at ¼ to ½ lb. per acre. You can spray this over the top of the corn when it's 2-10 inches tall while broadleaf weeds are still small. For taller corn, use drop nozzles with the spray directed toward the base of the corn.

Be careful with your rate since too much 2,4-D can cause severe leaf-rolling or brace root deformation. This can be particularly troublesome if hot dry weather follows treatment. Corn plants become brittle after spraying with 2,4-D, so don't cultivate for a week to ten days following treatment. However, don't throw away your cultivators. You'll need to cultivate for grass and hard-to-kill broadleaf weeds.

Do not use 2,4-D near susceptible

crops such as tomatoes and grapes if you want to keep out of trouble with your neighbor and your wife.

How about milkweed, hemp dogbane, horsenettle, and other hard-to-kill species? We have no magic herbicide for these tough customers. Luckily, these are usually only annoying and don't normally hurt yields. If they get bad enough to cause damage, cultivators are still your best bet.

Weeds in Alfalfa

"Clear" seeding is catching hold rapidly as many farmers gain enthusiasm for this method of getting better stands, through harvesting alfalfa the seeding year instead of oats. Best chemicals include Eptam for grass control, 2,4-DB or DNBP for broadleaf weed control.

Eptam should be sprayed on the soil surface and disced in before planting, following the steps previously described for Sutan. Eptam gives excellent control of annual grasses in alfalfa and birdsfoot trefoil seedings. It also controls timothy and brome, so use it only where you're sowing legumes without grass.

2,4-DB and DNBP control broadleaf weeds. Spray when alfalfa is 1-3 inches tall and weeds 1-2 inches. At this stage, weeds are easily killed. Later they get tougher and meaner.

DNBP also controls most broadleaf weed species. Don't spray on mornings when the weather may turn hot (above 85) by mid-afternoon. This can increase your chemical activity enough to damage alfalfa. Best bet is to spray during a cool snap in late spring. If weather threatens warm, wait until late afternoon or evening to spray. By the next day, you'll get little damage even if warm weather hits.

2,4-DB does well in warm or cool weather and takes out pigweed, lambsquarters and most other broadleaf weeds. But it won't attack wild radish, a weed closely resembling mustard. If this pest is yours, then use DNBP post-emergence or Eptam before planting.

Small Grains, Seeded

Best herbicides for broadleaf weeds in small grains, sown with a seeding, are 2,4-DB and DNBP. Spray when legumes are 1-3 inches tall. As noted above, 2,4-DB gets most broadleaves, but not wild radish. And at recommended rates it won't hurt alfalfa. If you're planning to green-chop your oats, note that the label clearances do not permit feeding of the treated crop for 30 days after treatment.

DNBP use, as noted above, can cause problems in warm weather. Rates given above are for air temperatures up to 80 degrees F. If you expect hot weather, reduce your rate by ½ lb. for each 5-degree increase above 80 that your weatherman predicts. You may still get some oat damage.

If you're seeding trefoil, use 2,4-DB. Trefoil is sensitive to DNBP, can suffer damage.

Grains, Not Seeded

For weed control in wheat, barley, oats or rye, you can get good weed control with 2,4-D sprayed on when the grain is 5-12 inches tall. Wait until the crop starts to tiller, since

(Continued on next page)



Super-Sweep pickup here

...means more haylage here.

Only New Holland gives you a forage harvester windrow attachment with Super-Sweep pickup.

Super-Sweep has more teeth (60) and they're set closer together (2 5/8 inches apart) than on any other pickup. Short, fine cuttings that might slip past ordinary pickups get lifted into the auger by the Super 717.

It's well-cut haylage, too. First of all, it gets cut thoroughly because the crop feeds through uniformly. And second, it's easy for you to keep the blades at their bevel-edged best.

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on fine-chop (as short as 3/16" with nine knives) that packs tightly and stays fresh.

Best of all, you'll discover the Super 717 does the job with a minimum of effort. Whether you're chopping corn silage (with a 1-row, 2-row or 2-row narrow head) or standing crops (with the

sicklebar attachment) or haylage.

This should be reason enough to head for your New Holland dealer the next time you're in town.



SPERRY RAND

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Practical in design • dependable in action

it is sensitive to 2,4-D before tilling.

Also, spray before the boot stage. Later spraying can cause distortions in the head. Best rate is a half-pound per acre of chemical. Oats are most susceptible, barley most resistant.

One-fourth pound per acre is enough for some broadleaf weeds, but the half-pound rate will get hard-to-kill pests like wild radish, bindweed, and chicory. New York recommendations suggest the use of 2,4-D in the amine form. Pennsylvania adds the possibility of the ester form of 2,4-D for really tough weeds.

But watch out for spray drift with the ester form. It's "hotter," and

can cause more harm if it goes over the fence.

Pounds of What?

In considering college recommendations, including those above, note that rates are expressed in terms of **active ingredient** of chemical, not in gallons or quarts of commercial product. We do this because chemicals can come in different percentages in the can... but you're interested in the actual herbicide present.

For instance, Lasso is present in most commercial formulations at 4 lbs. per gallon. But a gallon weighs 8 pounds. To get a recommended rate of 2 lbs. per acre, you'll need a half gallon (4 pints or 2 quarts) of the commercial formulation. Likewise, in wettable powders, an 80

percent mix of atrazine will mean that you need to put on 1.25 lbs. of material in order to get a pound of chemical.

Before spraying, check your calibration. Don't cut corners. I've sprayed corn, and I know it's tempting when you're in a hurry to put in the chemicals and get to spraying. However, a few minutes spent to be sure the rate is right will make the job worth doing.

If your rate is off, or if your sprayer is operating unevenly, you may get poor weed kill... or good kill on your crop plants. Herbicides are tricky. The extra time you spend making sure they go on right is well worth spending.

Calibration jars are handy and available through most chemical dis-

tributors. Check these along with instructions, and you'll find it very easy to check your spray rates. Also examine your nozzles and screens. Worn nozzles can affect pattern of spray; causing overlapping or "thin" areas. An overlap gives you double spray, might cause crop injury... Thinly sprayed areas give you poor weed control.

Above all, take care in your handling of chemicals, all the way from purchase to container disposal. Use them safely for the protection of yourself and the general public. Remember it's open season on pesticides in much of the nation's press... and they're looking squarely at farming for "hot" stories. Don't you be the guy who helps them make a new headline!

VEGETABLES



Beans — J. C. Hickey, agronomist for the Burnham and Morrill Company, writes that farmers in New England are in an improved competitive position to grow dry beans... including the Yellow Eyes now most popular among growers in Maine.

For details, write the Company at One Bean Pot Circle, Portland, Maine 04104.

Seed-Tape — A new and easier way for home gardeners to grow at least 18 of their favorite flowers and vegetables is Seed-Tape, developed by Ferry Morse Seed Company. Simply prepare furrows to the proper depth, lay in the water-soluble green tape in which the seeds are encased, cover with soil, and insert the free row marker that comes with each seed package.

Seed-Tape has been tested in 36 states and five countries. Flowers include alyssum, asters, marigolds, nasturtiums, petunias, portulacas, zinnias and pansies. Among the "taped" vegetables available for spring planting are beets, carrots, lettuce, onions, parsley and radishes.



Just cut the Seed-Tape the desired length and put it in the ground!

Careless use of outdoor fires is a major concern of the State Conservation Department. In 1968 nearly 38 percent of all forest fires were caused by people burning refuse, leaves, grass and brush.

American Agriculturist, March, 1971

Bunkermix, and a new way to feed cows.

Agway is pioneering a balanced, complete ration for dairy cows that can be full-fed in the bunk. It saves chore time. It assures better utilization of homegrown corn silage. It eliminates feeding grain in the milking parlor. And there's no hay involved.

The method is to balance corn silage with a specially formulated 22% protein feed to produce a total mixed

ration. Agway calls this feed **Bunkermix**. It contains all the vitamins, minerals and trace elements needed by lactating cows.

If you are set up for bunker feeding, and your roughage program is all corn silage, this could be exactly right for your farm. For details on bunker feeding with **Bunkermix**, contact the Agway Enterprise Salesman through your Agway store or representative.

Farm Enterprise Service

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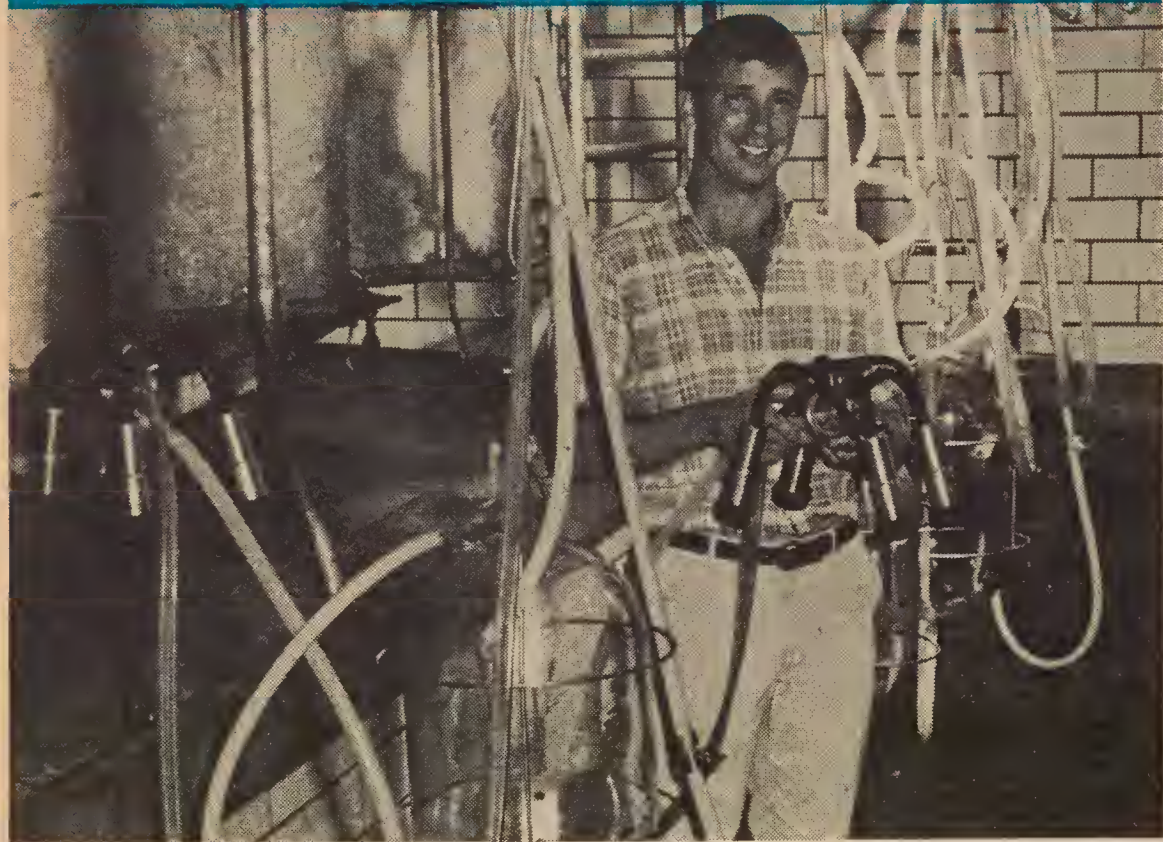


PESTICIDES IN PERSPECTIVE

by N. C. Brady*

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Writes RICHARD HOOD, RD1, West Grove, Pa.



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Richard Hood

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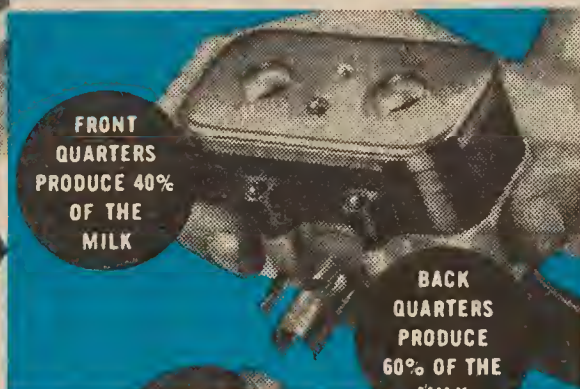


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THERE are two prominent views of pesticides and environmental quality. One is held by those who contend that agricultural chemicals harm neither man nor his environment. They see no harm from pesticides to fish and wildlife, contending that these creatures are more plentiful today than ever.

They assume that the efficiency of supplying farm products should be the prime criterion for judging whether a chemical is used in agriculture. They downgrade the significance of side effects from chemical use, and justify pesticides solely on the basis of economics.

Other Extreme

At the other extreme are those in our society who would in effect ban the use of all pesticides. To them, only those chemicals supplied through natural processes are acceptable. Since harmful effects have been demonstrated for some chemicals (e.g. DDT), they have concluded that all are bad and should therefore be banned.

These critics see a sinister relationship between the profit motive of the so-called agri-industrial complex and the downgrading of environmental quality. They feel that there is something sacred about nature unmolested by man, and that anything man does to modify the "balance of nature" is harmful.

In Between

Between these two extremes — utter degradation and a pristine environment — lie more sensible assessments of the real value or harm of agricultural chemicals. These assessments are based on facts to the extent they are available. It is appropriate to review some of these facts.

First, there is a wide variety of pesticides on the market having equally wide diversity of characteristics, including their toxicity to man and animals. Although not all are used in the Northeast, there are more than 900 of these chemicals available in the United States today.

Some are highly poisonous to man or fish and wildlife; others are quite harmless. Some persist in nature for years; others disappear in a matter of weeks or months. The great diversity of these pesticides and their individual characteristics makes it foolhardy to generalize as to the effects of adding these chemicals to our environment.

Essential

Second, pesticides play an essential role in modern agriculture. It would be difficult, if not impossible, for man to feed himself without the use of these chemicals.

In the United States, pesticides are vital components of the so-called agricultural revolution. They have helped hold down the relative costs of food so that today only about 16.5 percent of our disposable income is spent for food. Comparable

*Associate Dean, NYS College of Agriculture, Cornell University.

figures are 25-30 percent for Western Europe, 50 percent for Russia, and 75-80 percent in some Asian countries.

Pesticides have made it possible for one U. S. farmer to feed himself and at least 42 other people. They have raised productivity more than have machinery, land and buildings, and other such inputs. Furthermore, they have helped maintain food quality as it moves from the farm, through the marketing channels, to the dinner table. And they have also been responsible to no small degree for the fact that U. S. farm commodity exports continue to be our largest earner of foreign exchange.

For those who are not impressed with our dependence upon technology in modern agriculture... and the fine balance between food-production success and failure... the emergence this year of the southern leaf blight of corn indicates the delicacy of this balance. A new strain of this pathogen has decimated corn fields in the South, reducing the yields by more than 50 percent.

Nationwide, this new pest has taken a toll of more than 400 million bushels of corn. While farmers are the immediate losers, the consumer will ultimately pay through higher prices for beef, milk and chicken. Research scientists and seed companies are in a crash program to multiply disease-resistant stock, but it will be at least a couple of years before such seed is widely available to farmers.

Developing World

In developing countries, there is less dependence at the present time on agricultural chemicals than in the United States, Europe, or Japan. Fertilizer usage is minimal and pesticides are even less widely used, but the need to supply food for the rapidly-expanding populations of these countries tells us that this subsistence method cannot long suffice.

These countries have struggled to meet their food needs by increasing land in cultivation. But in India, for example, there is essentially no more land to put in cultivation. Increased food supplies are dependent on expanded irrigation, new varieties, fertilizer... and crop protection from pests.

Much has been written about the "green revolution" that some visualize as taking place in countries like Mexico, Pakistan and India. New high-yielding varieties of wheat and rice provide this optimism, but without proper fertilization and protection from insects and disease these new varieties yield little better than the native varieties which they are replacing. Obviously, agricultural chemicals... including pesticides... must be used if a hungry world is to be fed.

A grim reminder of the need for higher yields of food crops is the most recent report of the Food and Agriculture Organization which

(Continued on page 16)

New from Geigy:

**Now, AAtrex
in a liquified form
is available.**

AAtrex 4L.

New AAtrex® 4L is the brand of atrazine herbicide that pours. Needs no pre-mixing. Shake and pour directly into the spray tank. Can be applied in as little as 10 gallons of water per acre.

Needs only a minimum of agitation in the spray tank. And there's less chance of nozzle and screen plugging.

Works on weeds and grasses same way as AAtrex wettable powder. But the supply of AAtrex 4L may be limited in some areas. If we may be of help, or provide more information, please write:

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AAtrex by Geigy



WORKER REQUESTS

by Amos Kirby
New Jersey Editor

THE Puerto Rican government standards for workers have been raised. In addition to an increase of 15 percent in wages and a 10 percent increase in piece rates for 1971, they are asking that the grower furnish three adequate hot meals per day to every worker.

They also call for three paid holidays, and for work on those days to be at a double rate.

There are 16 demands, including opaque shades on the windows in the workers' houses.

These demands have been unanimously rejected by the Gloucester County Board of Agriculture, representing growers in a county that employs a substantial number of workers for crop production and harvesting.

CAUTION ADVISED

That familiar railroad crossing sign, "stop-look-listen," might well be observed by hog raisers and poultrymen.

In the face of a 15-cent pork price, the nation's hog raisers are reported planning a one percent increase in sows to farrow this spring. That means even more pork next fall!

The outlook for eggs is no brighter. Dr. A. P. Stemberger of Penn State, a member of the Outlook Committee of the American Feed Manufacturers Association, reports, "Egg prices (New York, Fancy Large Whites, wholesale) for 1971 are expected to average 37 cents per dozen, which is six cents **below** the 1970 average."

A similar trend in turkey prices comes from the same committee. Based on storage holdings, a normal consumption and estimated production, the price for the first half of 1971 may average eight cents per pounds **below** the comparable figure of 1970.

GRAIN SORGHUMS

Grain sorghums, long popular in southern and Great Plains states, have a place in Delaware farming, and maybe in New Jersey.

Sorghum does well in areas where soil moisture is limited. As to yields, they have been as high as an equivalent to 116 bushels of corn per acre.

Sorghum can withstand flooding. Properly-treated seed will germinate after being submerged in water for 10 days or even longer. Corn, when submerged in water, rarely germinates after three days.

DAIRYING IN THE 70'S

The New Jersey Department of Agriculture has a report which predicts the trend of the Garden State's dairy industry in the next 10 years.

The report was prepared by John W. Carncross, agricultural economist at Rutgers. It states that there will be dairies in the State for the foreseeable future. The dairies will be larger. They will solve the animal waste problem that could now be an environmental bone of contention.

New Jersey's Farmland Assessment Law provides a tax burden that can be lived with. The open space movement, as it becomes recognized by the public, means that non-farm residents will be happy to have livestock, open fields and growing crops nearby.

There will also be a growing realization that milk from nearby

farms is important for better health. The report goes into much greater depth, and deserves study by dairy-men who plan to be producing milk in the years ahead.

NO MORE DDT

The Environmental Protection Agency (EPA) has announced that all remaining federal registrations for the use of DDT will be cancelled in compliance with a recent order issued by the U. S. Court of Appeals in the District of Columbia. Principal crops affected by this withdrawal are cotton, citrus and certain vegetables.

The EPA on January 16 started an intensive 60-day review of whether DDT... and certain uses of 2,4,5-T

...should not be suspended because of the charge that they constitute an imminent hazard to the public.

Registration cancellations may be appealed, and sales continue, while the appeal is going on.

TROUBLE AHEAD

The environmentalists may be a problem in 1971, especially on the use of fertilizers and pesticides.

It is now a certainty that Congress will hold extensive hearings concerning fertilizer and pesticide runoff on farms. This could lead to a new approach to the use of both materials.

Because of the public demand for clean air and pure water, there is a possibility that some pesticides now

**Both can mow.
Both can condition.
Both can windrow or swath.
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From there on, the similarities

One of the most important *un*-similarities is price. The Cut/ditioner costs hundreds of dollars less. It's a simple machine, with fewer moving parts. It cuts a 7-foot swath and does an exceptional job in down and tangled crops, or in tall, tough, sudan hybrids.

The Mow/ditioner, on the other hand, cuts 9 feet wide and does an ever-so-gentle job on alfalfa, clover and grasses, as well as taller forage crops. Positive-but-gentle action of the special conditioning rolls delivers hay that's leafy — not stemmy.

True, they both mow. They both condition. They both swath or windrow. They're both PTO driven. And they're both New Idea. So stop in and get a firsthand look. You'll see why we say — the similarities can be very important to you at haying time. Or if you prefer, send your name, address and zip code for information on both machines.



Coldwater, Ohio 45828

New Idea Hay Tools
CAN DO machines from the CAN DO people

available may be prohibited even at the time when they are most needed.

A New Jersey regulation now in the planning stage is aimed at halting all brush burning in fruit orchards. Nothing may happen in 1971, but be prepared for 1972.

SILAGE FOR HEIFERS

Corn silage can be fed as the sole source of feed for dairy heifers. Possible deficiency is that the young animal may be short-changed on protein.

Research shows that feeding five pounds of alfalfa hay per animal per day, along with the corn silage, until heifers reach 600-700 pounds in weight is sufficient to supply ade-

quate protein. Another system is to add urea at the rate of 10 pounds per ton of silage when cut.

CROPS TO GROW

If one is still wondering what crops to grow in 1971, there is a clue in the financial report of one of America's large mutual funds. A financial institution handling billions, its financial experts place special emphasis on companies that have a small labor cost.

With farm labor costs at an all-time high, and with some crops requiring very large labor costs, one needs to take a second look before planning expansion.

There may not be as many cash-flow dollars in corn, wheat, soybeans

and barley, but labor costs are at a minimum. Limiting factor may be in land rentals or taxes, but there are growers in high-cost land areas who are operating as much as 1,200 acres in grain with a labor force of two men.

If one is producing vegetables, labor costs might well be the deciding factor on what to plant this year.

NEW FEED LAW

New Jersey's new feed law, which became effective on January 1, 1971, replaces a previous one that dated back to 1912.

The major change is centered in the method of registering feeds. Under old law, each individual brand

had to be registered with the State chemist. Now, however, facilities for the manufacture of feed must be registered for each mill where it is produced.

The new law spells out the requirements for medicated feeds, customer-formula feeds, pet feeds and other items.

CHILL FACTOR

Peach growers who have lost crops due to the freezing of the buds, even in the dormant stage and at moderate temperatures, may find that the chill factor was the real culprit. The chill factor is a combination that takes into account both wind and velocity.

A temperature reading of zero, with a five-mile-per-hour wind, gives a chill factor of -5. A temperature reading of 20 with a 20 mph wind creates a chill factor of -10. In New Jersey in 1970, many peach orchards located with good air drainage... but on slopes subject to high winds... had most of the buds killed while in the dormant stage.

Chill factor tables are available from the Weather Bureau, and from agricultural colleges.

PLASTIC HOUSES

Plastic greenhouses for the vegetable grower... and even for home gardeners... are growing in popularity. Plants started in plastic houses will be ready to go in the field two to three weeks earlier, produce that much sooner, and enable growers to get the top price of the early market.

One can erect a 14x50-foot house with half-inch water pipe for a framework. The plastic used in South Jersey is the 4-6 mil grade, and may be erected with ordinary labor.

HEIFER PROJECT

Dan West, the founder of Heifer Project, died early in 1971. He had seen his plan for sending "seed animals" overseas grow from an idea to an organization that has shipped 40,000 food-producing animals and 1.5 million chickens.

Top-quality animals are gathered together in the U.S., then sent overseas to form the foundation for herds and flocks in food-short countries. However, there has always been a shortage of qualified people to train the recipients in the techniques of good animal husbandry.

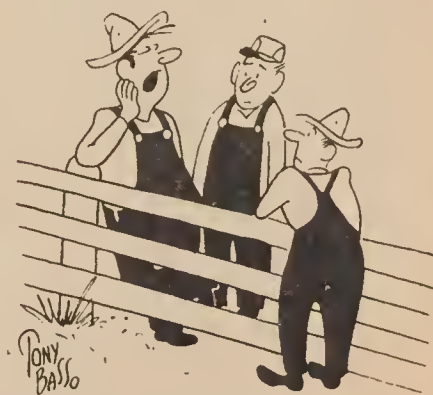
The family of Dan West, and the Heifer Project, Inc., have jointly established the Dan West Education Fund to support volunteers who are able to provide that training to recipients of Heifer Project livestock. For details about the Fund... or Heifer Project in general... write Roger H. Cross, Green Lake Road, Fayetteville, New York 13066.



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FARM MANAGEMENT FIGURES



For many years, farm business management projects have been important features of Extension programs in New York State. Here are figures from a series of years at 5-year intervals drawn from summaries prepared by Professor C. A. Bratton of the New York State College of Agriculture. These farmers don't represent the average for the state, but they are practical farm operators from various parts of the state who voluntarily participated in the project.

SELECTED FARM BUSINESS SUMMARY FACTORS
New York Dairy Farms, Selected Years, 1959—1969

Item	Year		
	1959	1964	1969
Number of farms	542	434	511
Financial Summary			
Average capital invested	\$47,840	\$57,187	\$116,525
Total farm receipts	\$22,548	\$25,634	\$ 59,662
Labor income per operator	\$ 3,489	\$ 2,958	\$ 7,885*
Size of Business			
Number of cows	35	40	60
Pounds of milk sold	327,400	450,400	761,700
Man equivalent	1.8	1.7	2.1
Rates of Production			
Milk sold per cow	9,360	11,260	12,700
Tons hay per acre	2.0	2.0	2.8
Tons corn silage per acre	11	12	16
Labor Efficiency			
Cows per man	19	24	29
Pounds milk sold per man	181,900	264,900	362,700
Cost Control Factors			
Machinery cost per cow	\$ 111	\$ 109	\$ 167
Machinery cost/cwt. milk	\$ 1.18	\$.97	\$ 1.32
Feed bought per cow	\$ 113	\$ 155	\$ 180
Feed bought/cwt. milk	\$ 1.32	\$ 1.38	\$ 1.42
% Feed is of milk receipts	26%	31%	24%
Capital Efficiency			
Total investment per man	\$27,387	\$34,493	\$ 57,724
Total investment per cow	\$ 1,408	\$ 1,466	\$ 2,020
Machinery investment/cow	\$ 295	\$ 315	\$ 452
Total investment/cwt. milk	\$ 15	\$ 13	\$ 16
Other			
Acres hay & hay crop silage	62	90	85
Acres corn silage	15	19	42
Total acres in crops/cow	3.0	2.6	2.6
Lime & fertilizer expense per crop acre	\$ 7	\$ 9	\$ 13

* Labor income using a 7% interest charge on all capital

The Song of the Lazy Farmer



Despite the chores that it will bring, I'm mighty glad to welcome spring. It's great to reach the season when a guy can get outside again; I've often wondered 'bout the folks who live in city fumes and smokes and don't know what a thrill's in

store when life begins to stir once more. They've never had a chance to laugh at antics of a new-born calf; they can't believe, 'cause they don't see, how high a lamb can jump, by gee; and think of all the kids there are who know the sound of train or car but never hear a litter's squeals or baby chicks' high-pitched appeals.

Apartment dwellers prob'ly think that country smells are mostly stink, but that's because they've never sniffed the pleasant perfume that will lift when rich black soil is overturned; and those poor souls have never learned the joy of watching leaves unfold when springtime warmth replaces cold. The sight of brown fields turning green is something they have never seen; they'd think me crazy to suggest it's fun to watch birds build a nest. I even think it's awful sad that there are folks who've never had to go to work 'fore dawn, by heck, or wade in mud up to their neck.

American Agriculturist, March, 1971

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We'll even help you whip the weeds Treflan doesn't get. Like ragweed or nightshade. Operation Headstart is one way.

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Personal Farm Experience

INTERESTING SIDELINE

Karl and Ernest Kuhlman of Star Route, Owego, New York, are brothers operating a dairy farm in Tioga County. They have 144 milking cows, feed mostly haylage and corn silage for roughage (plus 15 to 20 bales of free-choice hay per day to the entire herd).

Ernest comments, "We had a good field of direct-seeded alfalfa hay in 1970... and another field of red clover. Because of the weather, though, we lost most of it trying to make dry hay. Haylage is our best use for most hayland."

One full-time employee, Wayne Keeny, completes the basic work force... and the three men sold 2,180,000 pounds of milk in 1969. That's 700,000 pounds per man!

The efficiency here is sufficient to allow some vacations. "Two men could run the outfit flat-out," Karl comments, "but they wouldn't get any time off." Ernie is an avid hunter, and has hunted in Canada's Northwest territories and Alberta, as well as in South America.

It is in Central America that the Kuhlman brothers are financially involved in an unusual venture... the El Sabalo Lodge near Sarteneja, British Honduras. Karl originally investigated the possibility of farming in that area, but decided that there was no profit there in absentee ownership of a farm.

Rural Area

El Sabalo provides visitors adequate... but not lavish... living quarters. The Kuhlman brothers want to retain the rural nature of the area, and guests have an opportunity to take part in local activities. The nearby Caribbean provides excellent fishing, and a tour along the world's second-largest barrier reef is an unforgettable experience.

Winters are warm and dry... in delightful contrast to more northerly climates. New Englanders will be interested to know that lobsters are plentiful along the coast of British Honduras.

An English-speaking guide, George Verde, is native to the area... and is available to guests for help in fishing, there are Mayan ruins to explore... and no telephones, television, or autos to disturb the peace! — G.L.C.

ALL SILAGE

The Mountway Farms near Owego, New York, are operated by John Hyatt, his son Gerald, and his nephew Philip. There are 82 cows here, fed no hay unless the silage and haylage supply runs out.

The Hyatts grew 150 acres of corn in 1970... filled a 20x60 silo with it, as well as a 20x27 Harvestore with high moisture shelled corn (HMSC). Another Harvestore, this one 25x80, was chucked full of haylage from 130 acres between June 10 and June 26.

An unusual arrangement at Mountway Farms is the around-the-barn gutter cleaner in front of the cows... moving silage along a manger gutter 22 inches wide. Silage

American Agriculturist, March, 1971

acids were eating the concrete floor of the manger, so the Hyatts covered it with 1/8-inch-thick steel plate... also providing a slicker surface for the paddles to move upon.

Two neighbors raise the herd replacements on a contract basis; the Hyatts pay a stipulated amount per head per month, and retain ownership of the animals. Calves are started at Mountway Farms until weaning at 3 to 4 months of age.

Cows stay in the barn the year around (except for brief exercise periods). Two 36-inch fans are hinged to the ceiling above the alleyway between two rows of cows...

in the summer, they move air for cooling, in winter are swung up out of the way.

HMSC goes through a roller mill as it comes from storage. Protein supplement brings grain mix to a 16 to 18 percent protein level.

"Feeding dry hay would be a bottleneck in our operation," Gerald comments, "even though we did put up 1500 bales in 1970."

Two men milk, each using three units in the around-the-barn pipeline system. A recent DHIC rolling herd average was 15,914 pounds of milk and 584 of fat. — G.L.C.

John Hyatt sweeps up. Note paddles of gutter cleaner that moves silage to cows along the manger.



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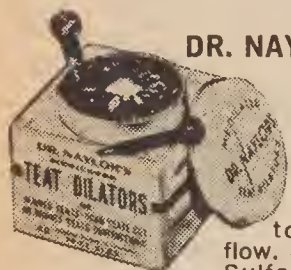


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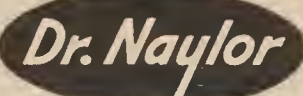
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SPARROW CONTROL



Several years ago, I reported to AMERICAN AGRICULTURIST the apparent success we were enjoying in controlling the English sparrow on our farm. What seemed apparent then has now become unmistakable. This winter, for the first time in more than fifty years in my memory, no large flock of these pests has lived here. Today, one would be hard-pressed to note a dozen!

Two things seem to have been proven: English sparrows seldom survive the second winter; mortality is almost total before the second mating season. A simple procedure is effective in preventing a new generation in any nesting season.

Destroy Nests

The procedure I outlined in my earlier report is this: Destroy the nests **before** the eggs hatch . . . or, failing that, the young before they leave the nest. There need be no difficult, aggravating trapping of mature birds.

The nest destruction program must be followed carefully. Sparrows are mighty workers; they may re-establish a nest in one or two days! Then in four more they may fill it with eggs.

Every week to ten days . . . no longer than two-week intervals . . . make the rounds. Remove all nests **completely**. A light pole of sufficient length, rather than a ladder, is effective in working from the ground. An old cane fishing pole is good.

The time it takes to go over barn, corn crib, tool shed, garage and shop — even woodshed — is very little. Practically every one of us spends more time ducking some little chore not to our liking . . . like fixing that back door or patching the sidewalk. It averages out close to one minute for each nest destroyed.

Forty Nests

On this farm during the first years of the program, our procedure netted an average of **forty** nests for the early part of the nesting season. Each succeeding time the number decreased. Among sparrows as well as among men there are those who give up under adversity!

This year, the number of nests started was so drastically reduced that it was almost as though a strike was on! Several of the large growing areas (turkey-rearing) had no nests. The large barn, where security was always maximum for the sparrows, had only one nesting time, the first. Then none. The total for the entire nesting season was **twenty-one**!

What a pleasure! And at so little effort and so small a cost. One word of caution. The program must be completely followed to the end of the nesting season. It's much like taking treatments for any serious disorder. The final treatment is the guarantee for the effectiveness of those before. — Gerald P. Rhodes, Clarence Center, New York.

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Pesticides

shows a decline last year in the world per capita supply of food. Coming at a time when most of the world's population goes to bed hungry each night, that is a serious turn of events. The tools of modern technology, including pesticides, must be put to work if this trend is to be reversed.

A third observation about pesticides is that some of them have harmful side effects. In truth, pesticides are killers . . . otherwise they would not do their job of protecting man and his crops or herds from annoying and destructive pests. Some of them, such as organophosphates, are poisonous to man. Others, including DDT, adversely affect fish

and wildlife, and still others kill non-target organisms that may be helpful to man, or they may persist in the environment long after they have served their purpose.

Some agricultural chemicals move rapidly enough to become distributed far from their points of application. At any one time, their concentration in the water, soil, or air may be small, but they can build up in the food chain to levels exceeding those considered safe by public health officers.

This establishes that pesticides are indeed the business of all of us, not just scientists, or manufacturers, or the farmers and municipal services who use them. Just as surely as the public depends upon agriculture for essential goods and services, it has a

vested interest in the use of agricultural chemicals.

One concern of the environmentalists is the astounding rate of increase in the use of pesticides. Since the advent of DDT in 1939, the number and quantity of these chemicals have steadily increased.

In 1969, the 900 pesticides were used in over 60,000 preparations. The total quantity sold in the United States has reached about 1.2 billion pounds annually . . . about half is used in agriculture. If unchecked, the usage is expected to continue to increase at an annual rate of about 15 percent.

Thus, the sheer volume of chemicals being added to the environment is a concern. Knowing that some pesticides are harmful to man,

or to fish and wildlife, the environmentalist has a tendency to emotionally condemn all of them. Since some of his current concern is for chemicals that at an earlier date were said to be harmless, it is easy to see why he lets his feelings get ahead of his facts.

While the agriculturalist may not agree with the environmentalist's assessment of pesticides, this assessment cannot be ignored. In the past, judgments with respect to pesticides were made on the basis of human health, efficacy (did they work) and economics (did they pay). To these must now be added their effects on fish, wildlife and other components of our environment.

The Dilemma

Summing up, then, we cannot continue our current level of living without pesticides . . . yet we are having an increasingly difficult time living with them. An example of our dilemma is the gypsy moth infestation in the Northeast.

Because of the ill effects on fish and wildlife of the massive spray programs aimed at control or elimination of this pest, the spray programs were eliminated. Unchecked, the gypsy moth has tripled the area infested in the past year, up to some 800,000 acres. In an attempt to reduce pollution from pesticides, we seem to be permitting even greater damage to the environment.

Mercury

The mercury hassle pointedly illustrates the case for rational approach and careful analysis, instead of quick conclusions and restrictive actions. It was unfortunate for agriculture that so much publicity was given to the New Mexico family tragedy and the case of farm animal poisoning in New York State, both of which appear to be accidental misuse of mercury-treated seed or sweepings.

Since then, it has become better known that agriculture is a minor user of mercury. In 1968, for example, only five percent of the country's total mercury production went into agricultural uses, and in 1969 it declined to 3.4 percent . . . somewhat less than agriculture's share of the damaging publicity! We know now that mercury is found naturally almost everywhere, in varying concentrations, and in several compounded forms.

The New York State College of Agriculture has made very few recommendations for the use of mercurial compounds in recent years, and for 1971, there are no uses for which permits will be granted (see *AMERICAN AGRICULTURIST*, January 1, 1971, page 18). Some forms of mercury have been suspended at the federal level.

Having considered the pros and cons of pesticides, three conclusions emerge:

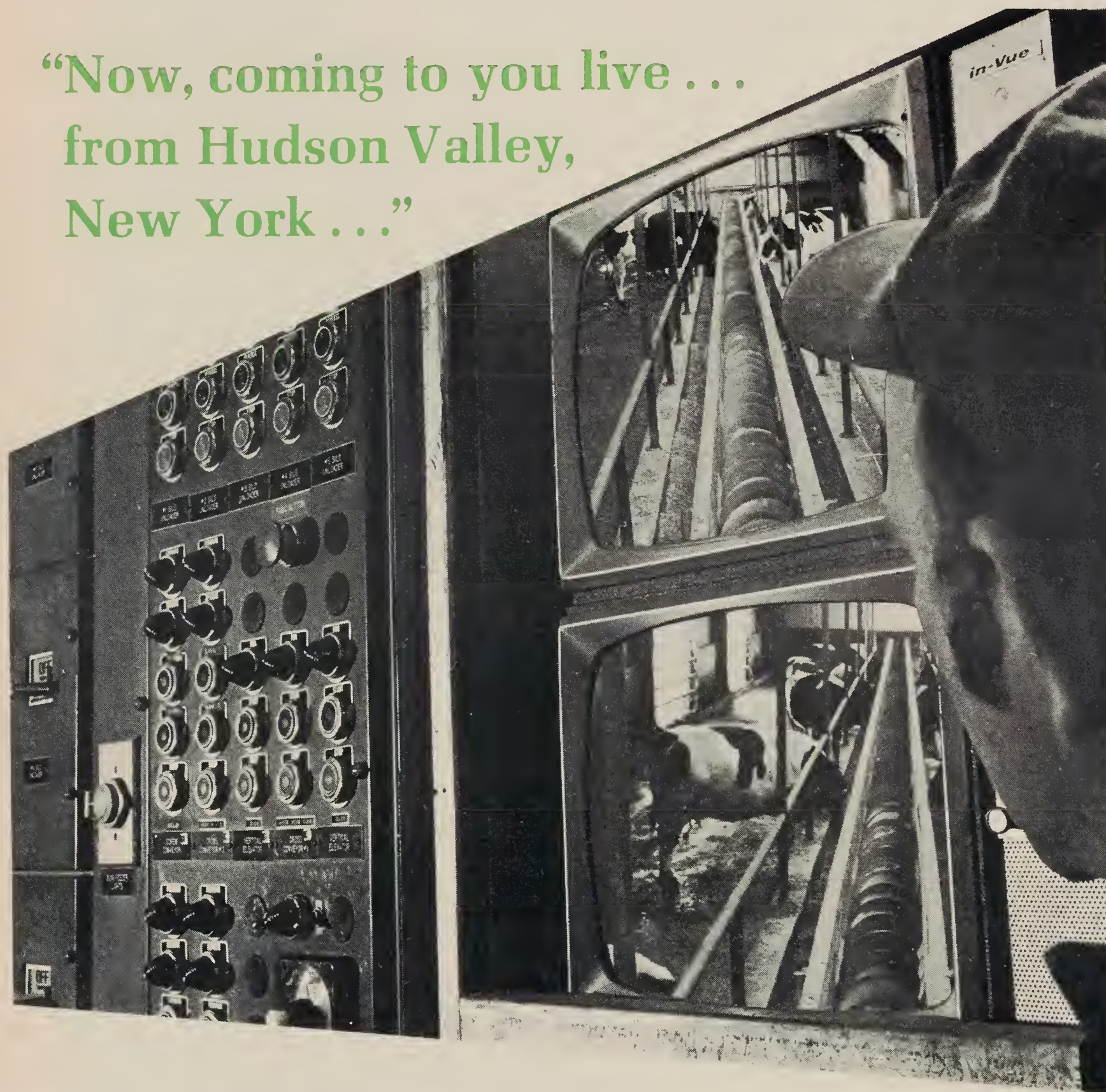
1. Pesticides continue to be vital tools in protecting man, his crops and animals from the ravages of pests.

2. Environmental concerns will force the removal of some of the more troublesome pesticides from agriculture's arsenal.

3. Research and development inputs must be greatly expanded if a

(Continued on next page)

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hungry world is to be fed and a quality environment maintained.

The third conclusion relates generally to the first two, in that it emphasizes our lack of knowledge about chemicals and their effect on the environment, and about alternatives to the use of these chemicals. This knowledge is essential to make reasonable judgments on the use of chemicals. Without it, we can only speculate and dispute one another, and take action based more on emotion than on science.

Research Approaches

Two research approaches to pest control seem to make sense. One is to find chemicals, and techniques of using them, that reduce or eliminate environmental contamination. The other is to seek alternative non-chemical means of controlling the pests. Each route will require a level of public research inputs far greater than we are now expending.

The search for new, safer chemicals (and methods of using them) is most complicated and expensive. The average research and development costs for pesticides currently on the market is nearly \$6 million per chemical. Future costs will likely be even higher because of the more stringent requirements for the thorough checking of side effects. Much of this added cost will likely fall on public agencies because private companies will not be attracted to develop the narrow-spectrum chemicals for specific targets which environmental concerns demand, but which will likely have lower sales potential.

Seeking alternatives to pesticides for pest control also will not be cheap, but it must be done. Dramatic efforts must be devoted to finding alternatives to the most toxic and persistent of the chemicals.

Biological

For example, biological means of controlling pests must be sought. Genetic resistance to insects as well as disease is in the realm of possibility. Parasites and other natural enemies of the pests must be sought out and utilized. Insect sterilization by use of chemicals or radiation must be pursued, as should sex attractants and the so-called "juvenile hormone" approaches. Modified cultural practices and crop rotations can help control pests without chemicals... or with smaller quantities than are now being used.

There are some outstanding examples of successful means of pest control which do not utilize chemicals. Most important is the breeding of disease resistance into modern crop varieties. Except for long-lived crops such as apples and other fruits, this method has traditionally provided the needed disease control much more effectively than have chemicals. The genetic route also

appears to be a fruitful one in seeking insect resistance.

An example of a recent triumph of biological control of an insect is the use of wasps to control alfalfa weevil in the Northeast. This pest had swept from the Mid-Atlantic states northward, endangering the most important and productive forage crop in the region. Chemical control was possible, but was expensive and presented environmental hazards.

The introduction from Europe of four species of wasps which are parasitic toward the weevil has markedly reduced the damage from this devastating pest. While in some specific situations it may be necessary to use limited quantities of chemicals to control alfalfa weevil,

the chemicals will be used as part of an integrated approach. The ultimate result will be pest control with a greatly reduced pollution hazard.

The Future

Faced with the many ramifications of the pesticide problems, agriculture must take some affirmative steps. Among these are the following:

1. We must recognize the great fluidity of policies and procedures relating to pesticides. We are in a new ballgame. Last year's rules are being modified in the direction of giving more emphasis to environmental quality.

2. While we must fight for those specific chemicals and specific uses which are essential to protect crops

and animals, broad justification for all pesticides will become increasingly more difficult.

3. We must recognize that the side effects of some of our more important pesticides will likely eliminate them from the market. Alternatives must be found.

4. We must obtain greatly increased support for research, development and educational efforts to find pest control devices less potentially hazardous than some we are now using.

5. We must continue to interact and cooperate with the policy and decision makers who will determine which pest control tools we can use. Above all, we must seek to have judgments based on facts rather than emotion.

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Doc Mettler Comments on:

UTERINE INFECTION



AFTER the winter we have had this year, even the skiers and snowmobile enthusiasts should be anxiously awaiting signs of spring! I presume by now everyone has his seed corn ordered, and the fertilizer stored.

However, I will also guess that in most dairy herds around the Northeast, there are a few fall-freshening cows that are not bred back yet. If you are going to have those cows freshen before the first of next year when the milk price starts to drop, you have about three weeks left to do so.

One of the most common reasons for infertility in the dairy cow is uterine infection. Much of this is caused by cows that had calving and/or cleaning problems. These cows, at least, have forewarned us, and there has been time to start working on them and getting them ready for the normal rebreeding time.

Unexpected

The one that causes the most trouble is the unexpected one . . . the cow that calves and cleans normally and may even have a heat at 45 or so days with no indication of trouble. On the first heat after 60 days, this cow is bred and when 21 days go by with no return, she is assumed bred.

Even if this cow is discovered open at 30 days after breeding she has already gone by the period that will bring her back fresh again 12 months after the previous freshening. If she was not checked for pregnancy, she may not show heat until some warm spring day in May when for all practical purposes she has gone so far that you might as well milk her out and beef her.

If your herd is under a routine herd-health exam by a veterinarian, you will spot some of these cows before they are bred and treat them then. At any rate, if you are having pregnancy checks done routinely, you will spot them before they go so long as to make it impractical to treat them.

Prevention

This brings up the first step in preventing losses from uterine infection . . . that is, early detection. I have never been able to understand why some dairymen will lose cow after cow year after year because of sterility and not realize that having a veterinarian do routine fertility and pregnancy exams could save many of them.

The loss of one good cow sold for beef at the end of her first lactation can pay for a lot of veterinary service! It does not cost much more to have your veterinarian examine a dozen cows on a routine call than to have him examine one on an emergency basis. The difference in what he accomplishes on routine work actually makes you money. Emergency service can make your

losses less, but it does not make money.

What causes these infected uteri? It is always easy to blame the inseminator, but nearly always wrong. If we rule out the retained placenta and calving-problem cows, there has to be something happening after the first heat. I refuse to blame the inseminator; most of those I have watched are clean, careful and neat. Besides, during heat the uterus is capable of fighting off infection.

Infected Semen

I do not rule out the possibility of infected semen. Even with the most careful drawing and preparation, an occasional batch of semen will be causing infection. This is rare in the large commercial studs, but all too common where amateurs draw and prepare semen.

I believe that one of the most common causes of uterine infection is the type of bedding we use in conventional stables here in the Northeast. With straw almost unobtainable, and clean sawdust expensive, many dairymen have gone back to chopping old hay for bedding. Filthy bedding in free-stall barns can cause its share of problems too.

This is not my original idea certainly, but I do feel it is correct. Just look at your cows when they're lying down and you will see what I mean. Many cows, while full and fat, will gape at the vulvar opening while lying down.

Old chopped hay is full of dust and this dust carries all sorts of bacteria, molds and irritants. It settles in the open genital tract, and if the cow "sucks wind" when she stands, even more infection can be carried deeper.

Loses Resistance

As mentioned above, during heat the uterus is capable of fighting off infection, but in a few hours this resistance is lost, and if the vagina is full of bacteria-laden dust during the first few days after heat, the infection can spread through the still partially-open cervix into the uterus.

This type of cow will often conceive and carry for a few weeks until the infection overwhelms the pregnancy. Then what was a tiny embryo and fetal membranes turns to pus.

In other cases . . . usually in specific diseases such as vibriosis . . . the embryo will be passed and the cow return in heat. In leptospirosis it may remain as a "mummy" and the cow may not pass it for months.

These specific diseases can be controlled by vaccination and/or treating semen, but the type of infection I am referring to is nonspecific and more difficult to prevent and treat. At a later time we will discuss these specific diseases further.

If you have not had a pregnancy (Continued on page 19)

American Agriculturist, March, 1971

Food For The Spirit



by Robert L. Clingan

INTERIOR DESIGN

Jesus taught an inwardness of religious faith. He declared that "out of the heart proceedeth the issues of life." All forms of evil as well as good come from inner desires and resolutions.

How, then, can we describe the interior design of the life of a Christian?

Priority

It is first of all... and most important of all... marked by a high priority of love. By love, the Christian means active goodwill that emanates from the center of a person's life. It cannot be compelled or even duty-imposed; it must be autonomous and self-giving. All goodness without love is only an outer shell without an inner life. It is like a dead shell cast upon the seashore.

This is why the Apostle Paul said, "Though I give away all I have, and give my body to be burned, I gain nothing." It is no wonder that Jesus said that the two greatest commandments were to love the Lord thy God with all thy heart and mind and soul, and thy neighbor as thyself.

The second mark of the interior design of the Christian is more than a mark, it is an entire hierarchy of values.

Loyalties

We have many loyalties that are compelling, and sometimes dividing. At times they may seem like a team of horses improperly harnessed, tied to a load but pulling in opposite directions.

The entire testimony of the scriptures is that there is only one loyalty that belongs at the center... one's loyalty to the will of God. On the Biblical account of a test on Mount Carmel, Elijah said to the people gathered before him, and to the priests of Baal, "If God be God serve him; if Baal be God serve him."

Mettler

(Continued from page 18)

check on your herd in the past month, and you want to be shipping all the high-priced milk you can next fall, don't wait any longer, have it done tomorrow.

Follow your veterinarian's recommendations on suggested treatments for the open cows you find, even if it means having him come twice a week for a few times. Every cow you get bred and pregnant during March will put milk in your tank in December that you would not have if she is open.

Talk to your veterinarian now about starting a routine of fertility and pregnancy checks next summer and fall when breeding season starts. If you do this, by the first of next March you will know exactly where you stand for the following fall and can look forward to the spring and summer with pleasure.

American Agriculturist, March, 1971

Choose ye this day whom you will serve."

In the Garden of Gethsemane, the night before his crucifixion, Jesus finally prayed, "Not my will but Thine be done." His loyalty to God won out; all other loyalties had to take their place as lesser loyalties.

Anything else that takes its place at the center of a person's life becomes a new idolatry. This is true of anything... even yourself, your family, and your nation. The center of loyalty in a hierarchy of loyalties must be God.

Structure of Faith

The interior design of the life of a Christian must also include a structure of faith. Every building

that is to stand up against the vicissitudes of time must have an inner structure. The inner structure of a Christian is his faith.

The Twenty-third Psalm concludes with the picture not of sheep in the fold, but of a man who has become the guest of a king. This king sets a royal table in the presence of hostile forces and powers. In accordance with the custom of that time, the guest's cup is filled to the brim, and a little more is added until it overflows... my cup runneth over."

The man of faith knows that he holds within his hands the goblet of life filled to overflowing. He rejoices in life, and gives thanks to "the giver of every good and perfect gift."

The man without faith wonders if the goodness of life is real. Whatever he enjoys he believes he created himself, that he filled his own cup without help from anyone.

Modern writers in the field of worship commonly describe authentic worship as an act of celebration. They tell us that communion is a banquet of the Lord to be marked by joy and thanksgiving. Even the funeral service can become a celebration of the resurrection.

Yes, there is an inwardness about Christianity. The life of the Christian has an inner design marked by the priority of love, supreme loyalty to God, and an inner structure of faith. All else worthwhile follows this kind of "beginning within."



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HORSE LOVERS, PLEASE HEED!

I've never before written an article to put in a paper, but I hope every horse lover will read this.

I have an adopted son who wanted a pony, so at Christmas time, Santa brought one. Then we adopted an-

other son and he, too, wanted a pony. My wife and two sons bought me a mare bred to an Appaloosa, one of the best. The foal was born — joy beyond words.

Then my two sons and I bought Mom a mare, also bred to an Appaloosa. The pleasure we had, words can't tell. It seems like every good Appaloosa we saw, we bought...

also one Lippit Morgan. We bought one of the best Appaloosa studs around here.

Trophies

Mom took all her dishes from her china cabinets and you will see them filled with ribbons and trophies our two sons have won at shows.

Of course, our mare foaled, bred back, foaled again. To make a long story short, we had 26 horses and ponies, mostly Appaloosa. I'll bet many reading this are thinking, "What a grand time that family is having."

So it could have been except for one damn fly! It bit one of our horses; she lost weight and finally died. But another fly bit that sick horse and several more, and they

also got sick and died. And more flies bit more horses and more horses, etc. We did everything suggested by vets, but still more died.

Maybe by now some you have guessed that we had equine infectious anemia, or swamp fever. We had every horse tested at Cornell. At that time, we had 16 left out of 26. Today, a truck took all but three foals and three horses to where no flies will bite them and then bite **your** horse.

Sorrow

As I sit here tonight with my family, barely a word has been spoken since the truck left. No laughter, no funning, chores are done in silence.

I wonder if anyone reading this is thinking, "I couldn't put my pony or horse to sleep for anything in the world. I'd take my chance."

It might be all right for you to take your chance. But should anyone have the power to make everyone else take their chances too?

I will not write here now hard they die; it's too awful. But if anyone doesn't think it's worse than being put to sleep, send me your name and I will surely tell you.

Until we had our reports back from Cornell University, and read Doc Mettler's comments in the January issue of *AMERICAN AGRICULTURIST*, we and many others around here had never heard of such a thing as swamp fever. People believed we were starving our horses.

Thanks to all the horse lovers who took time to read this. But please don't take it lightly. Once that fly bites your horse he is dead... or a potentially dangerous carrier of the disease the rest of his life.

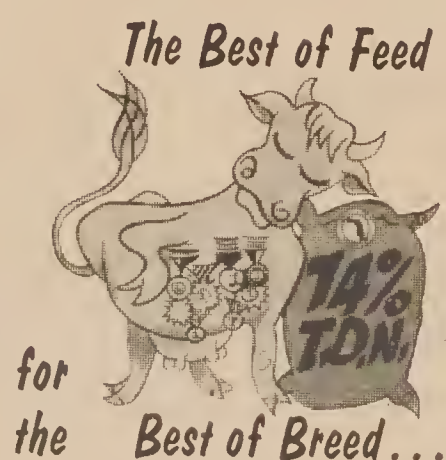
The few dollars you give to a vet to draw a little blood and send it to Cornell to detect E.I.A. will save you many, many tears. — *Freeman Sargent, Winchester, New Hampshire.*



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ODE TO ELMS

My beautiful elms are gone!

Two years you stood there barren of leaves, sadly rattling your skeleton branches, after the deadly Dutch Elm disease had ravaged your inner bark and drained your life away.

The tremendous girth of your boles signify that you are very old. Some newly-wedded couple must have planted you as whips before their new home a hundred years or so ago and called it, "Twin Elm Farm." I would have liked so much to have watched with them your sturdy growth from year to year!

When I acquired this home, I was elated to have you two majestic trees standing in front like sentinels... and have loved you for what was to be rest of your life there. In my mind's eye, I still see you standing there so tall and straight.

The morning sun hardly penetrated your green branches, and it was delightful on summer afternoons to sit in your shade with the rustling leaves murmuring overhead, and to dream the drowsy hours away.

Winter storms and heavy winds lashed your branches, but you only bowed slightly... knowing your massive roots were securely planted.

The red-headed woodpecker

(Continued on page 21)

American Agriculturist, March, 1971

First Class Mail

(Continued from page 20)

sounded its rat-a-tat-tat on your trunk as he fed on fat worms under your bark.

The oriole came back in spring to swing her nest from the same drooping branch, and later on I watched the babies being fed.

Flocks of shining evening grosbeaks settled noisily in your branches, while some looked in the feeder for sunflower seeds.

But the tree men came to cut you down. I could not watch, but neither could I shut out the raucous whine of the power saw as it cut into your trunks. Finally, the heart-rending groan of splintering wood as the tractor pulled you prostrate with cable and chain!

Truly, only God can make a tree!
— Mrs. Alice Strout, North Waterboro, Maine.

EQUAL TIME DENIED

I have been concerned for some time that the public has been receiving a very one-sided picture of the "misuse of our environment."

After watching NBC's "Today" television program one morning... which portrayed a very radical viewpoint on pollution, and was just another in a whole series of such programs... I called NBC in New York City and asked to speak to the person in charge of the program. He was a Mr. Rick Ballard. I told him that they had an obligation to also present information that supported a different viewpoint as to both the problem and the solution.

Agreed

Mr. Ballard agreed with my observation, and asked me to put my suggestions in writing and send them to him. This I did, as follows:

"If we are to act with intelligence to improve the quality of the environment, there are at least three areas on which there must be better understanding:

1. Land, water and air are the basic resources that make up our environment. Farmers, more than any other group, depend on these resources for a livelihood, and historically have carried out conservation practices. Rather than being one of the chief contributors to the pollution problem, up until now, they have done more to maintain clean and useable land, water, and air than any other group.

However, there are some problem spots appearing on the scene, and more can appear in the years just ahead. Even as the concentration of more people in our cities creates new problems and intensifies old ones, so also does the evolution in agriculture to larger units, greater concentration of livestock and poultry and intensified use of land for crop production, contribute to the growing problem. The Key Word for the future is "planning."

"Some would have us believe that we must restrict the use of our resources. This is unthinkable. Our problems have been created by their misuse in the past; our survival depends on their correct use in the future. To be accomplished, this will take un-

derstanding, cooperation and planning by all segments of our society.

2. Pesticides, herbicides, chemicals, and fertilizers have been targets of such abuse recently. What is their role? What have they contributed, constructively and destructively, to our civilization? Is D.D.T. being falsely accused? There is information that would indicate that it is.
3. Our food supply, its quality, quantity, and future availability should be of vital concern to everyone. What about residues and contamination? If our population is to double in the next 30 years, how can we plan now to insure a safe and sufficient supply of food?

"I realize that these three areas of concern I have listed could not be discussed adequately in a short period of time. However, I feel the material is interesting and necessary to the general public if intelligent and constructive solutions are to be arrived at. I would appreciate the opportunity of discussing this further with you and participating on the program if you so desire.

"I would point out that I do not contend that my opinions are infallible, or that my views are any more unchallengeable than those of others with opposing opinions. However, I feel that mine have an equal right to be heard and included in the public opinion-making process."

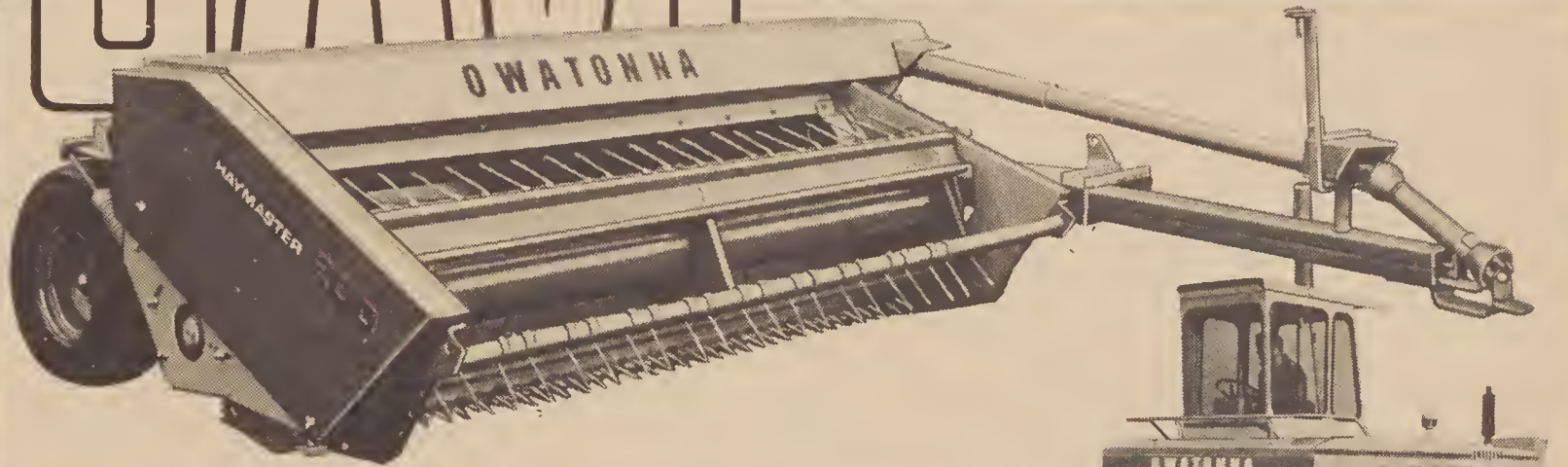
I heard nothing, so after several months I called Mr. Ballard, and was

informed that he had taken it up with his superiors and they had rejected the proposal. I do not know whether this is what happened or not, but it is an example of the power of a few people in responsible positions to decide what information the communications media of this country are going to make available to the public.

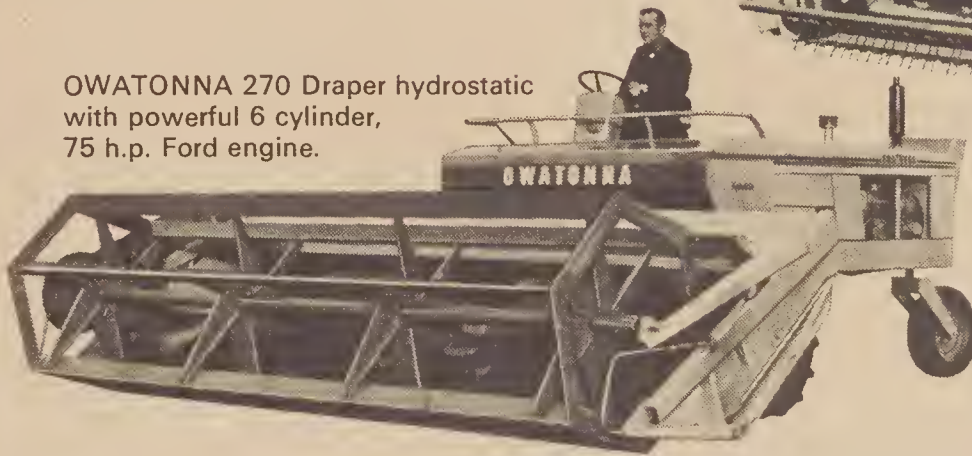
If those individuals have the power to allow only selected information... that which supports their own personal positions, or is politically or socially expedient at the moment... to be printed or broadcast, then we are indeed in a serious position!

I will do everything I can to do something about it. — Dick McGuire, President of NYS Farm Bureau, Cambridge, New York.

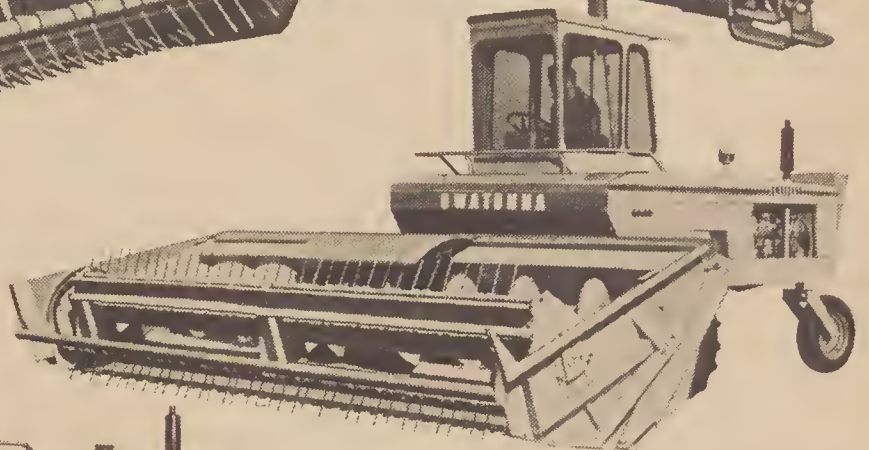
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- Will GREATLY increase your gardening joy!

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Springtime in Scandinavia means Midnight Sun and sunlit days, a sparkling world of fairy tale towns, majestic fjords, and modern cities.

TAKE YOUR PICK!

Again this year, AMERICAN AGRICULTURIST is offering you a choice of European tours — a Scandinavian Holiday (May 31-June 20), a Grand Alpine Holiday (August 3-28), our Grand European Tour (August 28 to October 6), and a trip to Spain and Portugal (September 9-30), with the fabled Royal Cities of Morocco as an added attraction. Also, there's the exciting British Isles-Iceland vacation we told you about last month. Make up your mind right now that you're going to Europe in 1971 with AMERICAN AGRICULTURIST and Travel Service Bureau!

This year's Scandinavian Holiday includes at no extra charge a trip across the Arctic Circle into Lapland which is truly "Land of the Midnight Sun." This will also give us a chance to see exceptionally wild and beautiful fjords we've never been able to include on our itinerary.

We've also kept all the old standbys. In Denmark, we'll visit the fairytale town of Aarhus, Hans Christian Andersen country, Copenhagen with its wonderful shopping and beautiful Tivoli Gardens, Frederiksborg and Hamlet's Castles, and other places too numerous to mention.

On our way to Stockholm in Sweden, we'll see the ancient ship, VASA, which has been recovered from the sea and restored. In Stockholm we'll see the unique Town Hall, old Riddarholm Church, as well as many other points of interest.

After our visit to Lapland, we continue south into Norway, and for several days see the most magnificent fjords, mountains, and valleys this beautiful country has to offer. Each day's scenery rivals that of the day before. Oslo is our last stop; here we'll see the Town Hall, Flower

Market, the Viking Ships, Polar Ship "Fram," and have time to shop for last minute souvenirs.

Grand Alpine Holiday

If you like mountains, lakes, glaciers, green valleys, picturesque villages and old-world cities, this is the trip for you! After two days in lovely Lucerne, we continue to Berne, and then to charming Montreux on the shores of Lac Lemman. After sightseeing in Geneva, we cross the French border to see famous Mer de Glace, a glacier coming down from the slopes of Mont Blanc.

Back in Switzerland, we ride narrow gauge and cog railways to picturesque Zermatt, in the shadow of the mighty Matterhorn. We return to the Rhone Valley and then travel the Bernese Oberland to the delightful resort town of Interlaken. An excursion into the mountains gives us marvelous views of the majestic Jungfrau and other lofty peaks. Fashionable St. Moritz is our last stop in Switzerland.

The beautiful Dolomites in Italy come next and then three days in Vienna, wonderful old city on the Danube. Salzburg and Innsbruck, with some of Austria's loveliest scenery in between, and finally one of the most famous mountain trips in Europe, through the Bavarian and Tyrolian Alps, conclude our Grand Alpine Holiday.

This popular tour has been sold out the other two years it was offered, and some people were disappointed who wanted to go and could not. Make your reservations early!

Grand European Tour

This is a leisurely-paced vacation,
(Continued on page 23)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Scandinavian Holiday _____
Grand Alpine Holiday _____ Grand European Tour _____
British Isles-Iceland Holiday _____ Italian Holiday _____
Mt. Hope Cruise _____ Mexico Fiesta Tour _____
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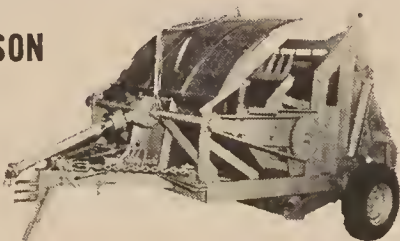
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Grape Crop — A substantial part of the total 1970 grape crop was picked by 139 mechanical harvesters, reports the National Grape Cooperative Association, Inc., and Welch Foods Inc. The grape crop was larger than several previous years in New York, Pennsylvania, Ohio and Michigan. In 1970, over 125,000 tons were harvested. The 1945 crops approximated 16,000 tons.

Imbibers — The popularity of wine in the United States is soaring, and Bank of America economists predict the strongest growth in wine markets ever recorded will occur during the next ten years. In 1970, the typical adult American drank 88 three-ounce glasses of wine; by 1980 the total is predicted to be 117 glasses.

There's a persistent shift from the stronger wines, though. Wines with less than 14 percent alcohol have posted a four-fold

increase in consumption in the past 15 years.

Grape growers are already gearing up to meet the demand!

Utilization Program — The New York Farm Bureau Marketing Co-operative has been working to develop a utilization plan for apples. Producers of more than three million bushels of apples in the State have signed petitions asking that a plan be developed to give apple growers a predictable position in a changing market.

A utilization program would include authority for the Commissioner of Agriculture to regulate the supply of fruit available to the market by size, quantity and grade. A diversion section would also be included...

so growers can manage excessive supplies.

The plan will be presented to growers during an extensive field program, and eventually a grower referendum will be requested.

Alar—A growth retardant named Alar, used at concentration of 1000 to 4000 parts per million, has provided outstanding pre-harvest drop control, and has delayed the softening of fresh fruit. However, no great gain without some possibility of problems... and some experts fear carry-over effects such as increased bloom (and fruit set), reduced fruit size, and alternate-year production.

A University of Massachusetts

study on the influence of less-than-recommended application rates (500 to 1000 ppm) shows:

1. On McIntosh, the lower concentrations of Alar had no influence on fruit size.

2. Drop control remained excellent at concentrations of 500 to 1000 ppm.

3. Lower concentrations enhanced fruit firmness.

4. Commercial growers may be able to use Alar at concentrations of 500-750 ppm (2 to 3 pounds per acre) on at least part of the orchards. The drop-count period in the study was only two weeks, however, and other studies point toward using 1000-2000 ppm if the drop control period extends longer than two weeks.

Take Your Pick

(Continued from page 22)

especially planned for first-time visitors to Europe. All of the "must see" attractions in eight countries are included, as well as out-of-the-way places to give you a better look at the people as they really live, away from the usual tourist stops.

On our itinerary are the places you've read about and always hoped to see in Holland, Belgium, Luxembourg, Germany, Austria, Italy, Switzerland, and France. We'll cruise down the fabled Rhine past castles and vineyards and tour Venice by gondola. We'll thrill to beautiful mountain scenery in the Austrian and Swiss Alps and the Italian Dolomites.

Our Atlantic crossings will be aboard the Holland-America Line's **Statendam** and the luxurious **SS France**. If you don't want to be away from home quite so long, you can fly one or both ways. We urge you to send today for the attractively illustrated folder.

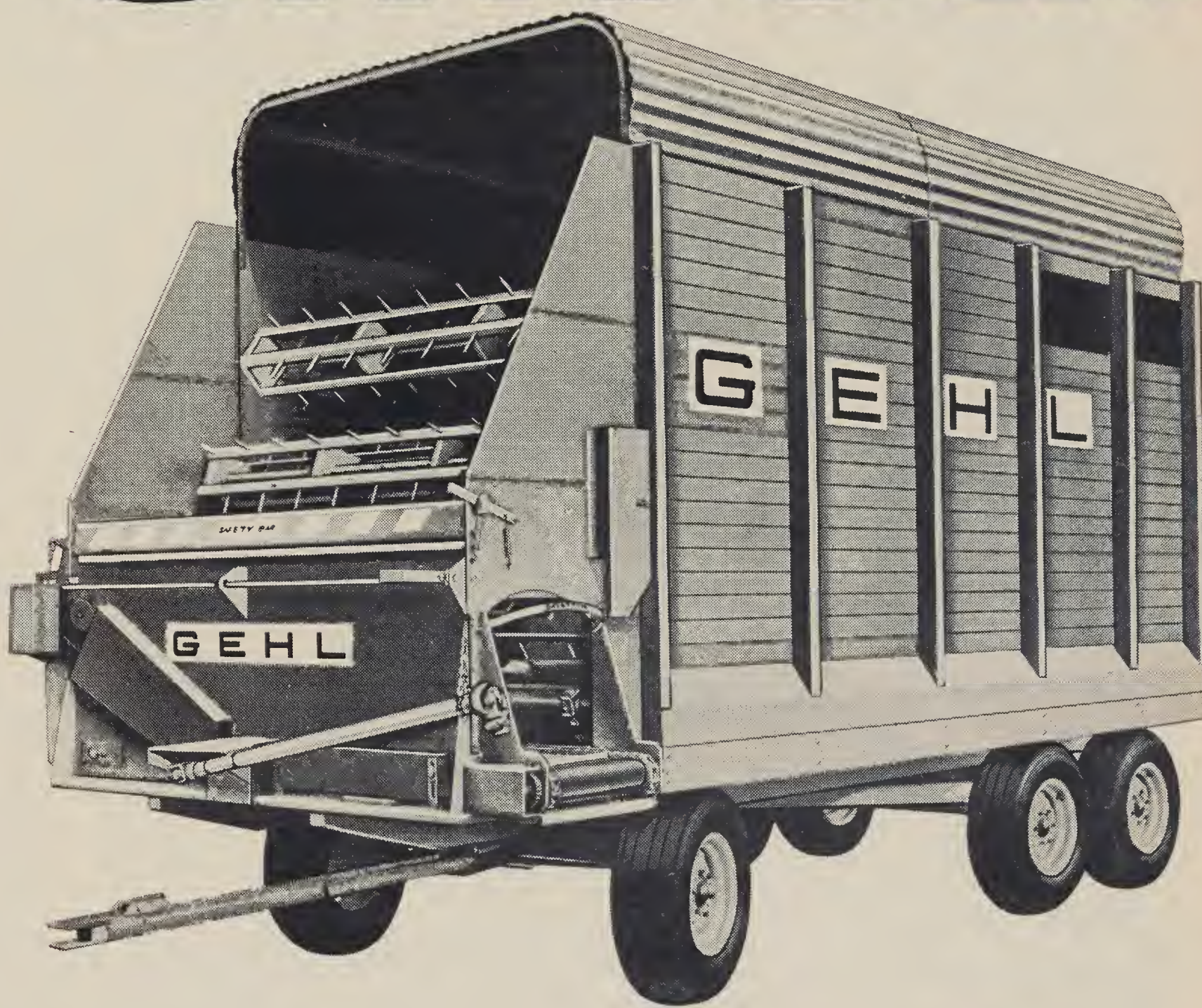
There's Still Time

If you hurry, it is still possible to join our **Springtime in Hawaii Tour** from April 19 to May 1, visiting the four main islands — Hawaii, Maui, Kauai, and Oahu. There is also space available on our **Roman Holiday** (May 3-24), our **Mexico Fiesta Tour** (May 4 to June 2), and on our fabulous **Around America by Rail 'N Sea** from May 6 to June 2. Send for these folders too if you don't already have them.

All AMERICAN AGRICULTURIST vacations are escorted trips, arranged by Travel Service Bureau. All are just as perfect as it is possible to make them, and practically everything is included in the price of your ticket — transportation, care of baggage, all scheduled sightseeing, most meals, tips, and accommodations at first class hotels. It's the nicest, most carefree way in the world to travel!

American Agriculturist, March, 1971

Smooth



... a worm gear drive makes it so. No bunching. No variance. You set the pace and Gehl's big BU810 sticks to it! There's positive action all of the way. *Positive* — a 4-chain feeder apron keeps all crops moving smoothly forward. *Positive* — heavy-duty beaters, located carefully for no-spill delivery, force even amounts onto the unloading conveyor. *Positive* — worm gear drive holds the unloading to the pace you set. ■ The Gehl "810" has a full 7-foot *inside* width with "grain-tight" unloading. Direct material where you want it easily, with a standard 8-inch unloading extension. The full-width safety bar (standard equipment) provides you with safe, instant control. A "touch" quickly stops the beaters. ■ Forage handling deserves this smoothness. Ask for a demonstration, or mail coupon.

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A close look at herbicide costs can save you \$2 to 3 per acre.

Sure, there are more and more corn herbicides on the market today. And, on paper at least, some of them may look pretty good.

But is that enough? Because what you need is a herbicide program that works in your fields, on the problems in your fields.

Any of the programs outlined below will do just that, and cost you \$2-3 per acre less than programs using other herbicides.

So what you've got to decide is which program best fits your needs and your pocketbook.

☐ For most annual grasses and broadleaf weeds, it's AAtrex® at the rate for your soil. The cost is \$2-3 less per acre than other herbicides. And no herbicide comes close to AAtrex in terms of effective control of most of your weeds and grasses.

It's safe to corn at any stage of growth, and can be sprayed any time in early spring. All you need is moisture or a shallow cultivation to move the herbicide into the weed root zone. Then you're set.

☐ For quackgrass, authorities agree that your choice should be AAtrex. Because you can use AAtrex in a program that will eradicate quack for 2 to 3 years.

Sure, eradication requires an initial investment because it takes two applications to do the job. But you'll get rid of quack for several years, and you'll average 15 bushels more grain . . . or four tons more silage.

And, next year, you can use AAtrex at the rate for annual weeds and grasses. This will save you \$2-3 per acre compared to other herbicides.

☐ For fall grasses, like crabgrass and fall panicum, use the new tank mix of AAtrex plus Princep®.

Controls not only fall grasses, but most other annual grasses and broadleaf weeds as well. Also, each herbicide is labeled for quack.

Check and you'll find that the AAtrex-Princep tank mix costs \$2-3 less per acre than any other combination. And it's safe to corn. Apply before planting, at planting or shortly after planting. Before weeds emerge.

Also keep this in mind: you can spray AAtrex and Princep along with nitrogen solution or liquid fertilizer. This'll weed 'n feed your corn in one operation.

For more information, please write us. Geigy Agricultural Chemicals, Division of CIBA-GEIGY Corporation, Ardsley, New York 10502. **AAtrex by Geigy**



How come more and more farmers are buying one of the lightest rubbers on the market?

The answer: because Tingleys are as tough as winter itself. Our special rubber formulation is made to wear and wear — without cracking or peeling in sub-zero weather. To give you sure footing in slop and mud, ice and snow.

And it does all this without a fraction of an ounce of too much rubber. Why wear weight all winter and spring? A few extra ounces can make your legs tired sooner, can make your shoes feel pounds heavier.

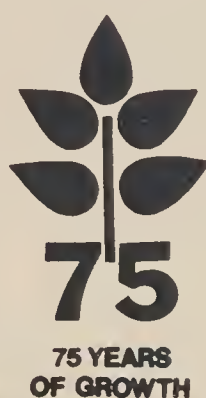
Take off weight. And get all the protection you need. All at a fair price. In a knee high boot or a 10" boot or a high top work rub-

ber that completely covers your shoe. No zippers or buckles to catch dirt or mud. Nothing to stick or bind. No lining to get soggy or catch your heels.

And if you're around livestock, you can disinfect your Tingleys, wipe them out with a cloth and put them right back on again. In seconds.

If those aren't enough reasons to explain why Tingleys are selling like — well, like Tingleys, stop in at your nearest Tingley dealer and try on a pair for yourself. Bet you buy them.

By the way, if you can't find a Tingley dealer in your area, write us. We'll see that you get a pair.



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Growers produces bigger yields of any crop — cuts time and cost — assuring you of bigger earnings per acre! Let us furnish convincing proof! Used by progressive farmers across the country. Send now for full details and name of nearest sales representative.

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Dollar Guide



SUGAR BEETS are more sticky than ever in Northeast. Fifty carloads of beets stood in sidings in New Jersey until late in January, then disappeared ... rumors say to be dumped by railroad impatient for use of cars. Another fifty carloads still sit in piles behind barns, or are being spread to feed cattle and hogs.

Reports from Maine reveal that beet plant at Easton is closed up, has not processed any of the 1970 crop from New Jersey, Pennsylvania, and Maine. Whole deal is buried under an avalanche of bankruptcy litigation brought by unpaid growers, legislative investigations, charge and countercharge.

COARSELY-GROUND OR CRACKED WHEAT can be safely substituted for up to 50% of the corn in a dairy grist ... and more than half if it's used in a pelleted ration. Wheat and shelled corn are equal in energy on a pound-for-pound basis; wheat contains somewhat more protein.

EGG PRICES IN 1971 are expected by Poultry Survey Committee of AFMA to average 6¢ less than in 1970; feed costs are expected to be up 1¢ per dozen. A bright spot for egg producers should come around October, when large whites should be averaging 40 cents.

WIDE SWINGS in cattle prices are less common nowadays ... but the peaks and valleys are still there. Get a free copy of "Seasonality of the Cattle Market" (ERS-768) from Division of Information, Office of Management Services, USDA, Washington, D.C. 20250.

MERGER of "Big Three" milk cooperatives in New England ... including CMPA, United Farmers of New England, and NEMPA ... is reported by a member of the joint merger committee as accomplished fact.

TART CHERRY CROP from New York and Pennsylvania (and 6 other states) will be sold under limits in a new Federal marketing order, approved by referendum of growers and processors. Now, in glut years part of the crop must be held back and not sold until a short-crop year.

SEVIN, long used for lice and mite control on poultry, is now a "No-No." Food and Drug Administration has demanded label changes, eliminating use of Sevin on laying hens. Co-Ral and Malathion are two materials recommended and cleared.

NATIONAL FARMERS UNION is sore over USDA's decision to update the parity-calculation base. Under the old base (1910-1914), current prices to farmers are at 67% of parity ... while under the new base period (1967), farmers are at 90% of parity.

SEED CORN purchased from a peddler you don't know, and touted as being "blight resistant," can be the poorest buy you ever made. Buy corn seed from established dealers.

NEWBORN CALF should get colostrum within first hour of life. There are no antibodies in its blood to fight disease, and ability of calf's system to absorb antibodies from colostrum begins to decline an hour after birth.

HAYLAGE can reduce labor inputs by nearly two hours per acre of alfalfa, as compared to hay ... and a change from hay to haylage can reduce daily feeding time by 25 minutes for a 40-cow herd. So reported Michigan State's Professor C.R. Hoglund at recent Agway-sponsored symposium on dairying in the 1970's.

SEASONAL WORKERS from Puerto Rico ... some 10,000 expected ... will get \$1.75 an hour for general agricultural work, and \$1.80 per hour for nursery work. New contract between Puerto Rican government and Garden State Service Association also includes variety of fringe benefits.

SOUFFLÉS — So Good And Easy

by Alberta Shackelton

What cook wouldn't enjoy adding a handsome, high soufflé to her culinary accomplishments? Contrary to the usual belief, they are neither expensive nor difficult to make if a few basic rules are followed, and they are a delight to serve.

Actually, a soufflé is simply a flavored thick cream sauce, blended with egg yolks, then folded into beaten egg whites and baked. The heat of the oven makes the air which has been beaten into the whites expand, so the soufflé just has to rise. Any soufflé will shrink to some extent even when thoroughly baked, so let your guests wait for this gourmet dish.

True soufflés include just two basic types — **Main-dish Soufflés** in which chopped or finely ground seafood, meat, vegetables, or cheese are blended into the mixture before combining with the beaten eggs and **Dessert Soufflés**, sweetened and flavored with vanilla, coffee, nuts, marmalades, chocolate or fruit juice.

The term "soufflé" is also applied to baked mixtures of fruit pulp and beaten egg whites and to certain very light cold mixtures similar to mousses which require no baking. For the latter, the height of the soufflé dish is increased with a 2 or 3-inch-wide buttered foil collar (removed for serving) attached to the dish.

Tack the following Soufflé Secrets up in your kitchen and have fun making soufflés during March when eggs are lower in price.

Soufflé Secrets

Choose any deep, straight-sided, ovenproof glass or earthenware casserole of the correct size for recipe. A 1½-quart dish is adequate for a 3 to 4-egg recipe to serve as a main dish to four, or to six in place of a vegetable. Leave dish ungreased. Dessert soufflés are sometimes baked in lightly buttered and lightly sugared dishes.

Unbaked mixture should fill dish to within ¼ inch from top. If serving more than 6, make two soufflés rather than double recipe. Soufflés may also be baked in individual baking dishes.

The sauce should be the consistency of a thick cream sauce. If it is too thin, soufflé will fall before it is cooked, if too thick, it does not fold well into beaten whites, and soufflé has less volume. Tapioca, rice, or other cereal may be used in place of or in addition to flour for the thickening agent. Undiluted canned condensed cream soups may be used as the sauce.

Eggs from the refrigerator separate better, but they (whites especially) should be at room temperature for beating. Be sure bowl and beaters are clean and dry; the tiniest bit of grease, yolk or moisture will prevent whites beating to full volume.

Any large bowl (except aluminum) and rotary or electric beaters are satisfactory, although a wire whisk beats whites to greater volume. Beat egg whites only until soft, moist peaks form when lifted on beater.

Some soufflé recipes call for an extra white or two to guarantee lightness.

Care is required in combining the sauce-yolk mixture with the beaten whites. First, fold ¼ to ⅓ of the properly beaten whites into the sauce mixture. This lightens the sauce and makes easier the combination with the remaining egg whites, which are then gently folded in with a rubber spatula. Push carefully into casserole.

A "crown" or "high hat" adds to the baked soufflé's attractiveness. With back of teaspoon, make a shallow groove all around top of mixture, about 1 inch from edge of casserole and to the depth of about ½ inch. Or you can mark top into ½-inch deep pie-shaped pieces with a sharp knife tip, wiping knife clean between each cut.

Place casserole on the middle of bottom shelf in a preheated oven and bake the required time without opening oven door, or at least do not open door for the first 25 to 30 minutes. Some recipes call for soufflé dish to be placed in pan of hot water for baking.

For the most part, a moderately slow oven is used, and soufflé is baked for about one hour. This produces the favorite American-type soufflé, evenly cooked and firm throughout, with a soft golden crust. A moderately hot oven and a shorter cooking period make the French version, a soft and creamy interior with a browner and crisper crust. Test for doneness by inserting knife well into soufflé, halfway between center and outside of dish. It should come out clean.

Serve soufflé at once to your waiting family or guests. Should serving be delayed 10 to 20 minutes, reduce oven temperature as low as possible to decrease loss of original puffiness.

CLASSIC CHEESE SOUFFLÉ

- ¼ cup butter
- ¼ cup flour
- ¾ teaspoon salt
- Dash paprika
- 1½ cups milk, heated
- 2 cups shredded sharp Cheddar cheese (½ pound)
- 6 egg yolks, beaten to blend only
- 6 egg whites, beaten to soft moist peaks

Melt butter, blend in flour, salt and paprika. Gradually stir in milk and cook over medium heat with stirring until thickened and smooth. Remove from heat, add shredded cheese and stir until melted. Stir in egg yolks quickly and mix well. Cool slightly.

Add from ¼ to ⅓ of the beaten whites to sauce mixture and gently mix thoroughly. Using a rubber spatula, gently fold in remaining whites until no large area of white remains. Pour mixture into an ungreased 2-quart casserole to within ¼ inch of top.

Form a crown or high hat as directed and bake uncovered in preheated slow oven (300°) for 1¼ hours without opening door. Serve at once to 6. Delicious served plain or with a Seafood or Mushroom Sauce.



Photo: General Foods Kitchens

By following directions and with just a little practice, you can make a Cheese Rice Soufflé that will look exactly like this one.

CHEESE RICE SOUFFLÉ

- ⅔ cup water
- ¼ teaspoon salt
- ⅔ cup packaged pre-cooked rice
- 3 tablespoons butter
- 3 tablespoons flour
- ¾ teaspoon salt
- Dash cayenne
- Dash pepper
- 1 cup milk
- 1½ cups grated sharp cheese
- 1 teaspoon grated onion
- 3 egg yolks, well beaten
- 3 egg whites, stiffly beaten but moist

Bring water and ¼ teaspoon salt to boil and stir in rice. Cover, remove from heat, and let stand 5 minutes.

Melt butter, stir in flour, salt, cayenne, and pepper and stir until blended. Gradually add milk and cook with stirring over medium heat until thickened. Add grated cheese and onion and mix well. Stir a small amount of hot mixture into egg yolks; return to remaining hot mixture and stir in rice. Fold in beaten egg whites. Pour into greased oven-proof casserole and form crown as directed. Place in pan of hot water and bake in moderate oven (350°) about 50 minutes or until firm. Serve at once to 5 or 6.

SEAFOOD SOUFFLÉ

- ¼ cup butter
- ¼ cup flour
- ½ teaspoon salt
- Dash pepper
- 1 cup milk
- 1 cup cooked, flaked crabmeat, salmon, tuna or cut-up shrimp or lobster
- 1 teaspoon lemon juice
- 4 egg yolks, beaten light
- 6 egg whites

Melt butter, stir in flour, salt and pepper and blend well. Gradually stir in milk and cook over medium heat until thickened and smooth. Stir a small amount of sauce into beaten yolks and then return to remaining sauce. Stir in seafood and lemon juice and blend well.

Fold about ⅓ of the beaten whites into sauce mixture, then fold in remaining whites with a rubber spatula. Place in ungreased 1½ quart casserole and bake in preheated moderate oven (350°) about 50 minutes, or until soufflé tests done. Serves 4 to 6.

Note: If desired, substitute cut up, cooked chicken, turkey or ham for the fish suggested in above recipe.

DELICATE ORANGE SOUFFLÉ

- 3 tablespoons butter
- 4 tablespoons flour
- 1 6-oz. can undiluted frozen orange juice, thawed
- 2 teaspoons grated orange peel
- 4 egg yolks, beaten light
- 4 egg whites, beaten stiff but moist

Melt butter, blend in flour and slowly add the thawed orange juice to which enough water has been added to make 1 cup. Cook with stirring over medium heat until thickened. Cool slightly, add orange peel, and combine with beaten egg yolks.

Fold about ⅓ of the beaten whites into orange mixture and then fold in the remaining whites. Place in a 1½-quart ungreased, straight-sided casserole and bake in moderate oven (325°) 50 to 60 minutes, or until it tests done. Serves 4 to 6.

Soufflé may be served with Orange Sauce if desired. To make sure, combine 1½ tablespoons cornstarch, ⅓ cup sugar, 1 tablespoon grated orange rind and stir in 1 cup orange juice and ½ cup water. Cook with stirring over medium heat until clear; add 1 tablespoon lemon juice.



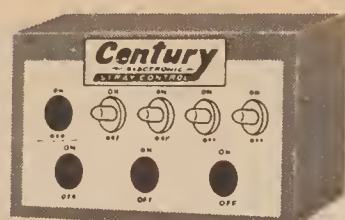
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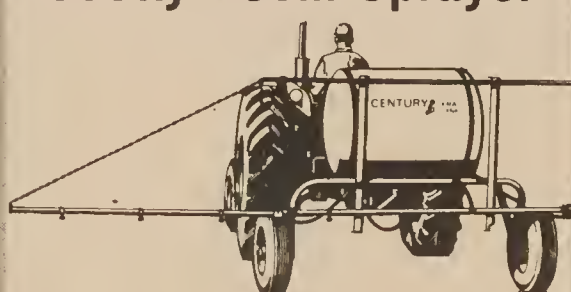
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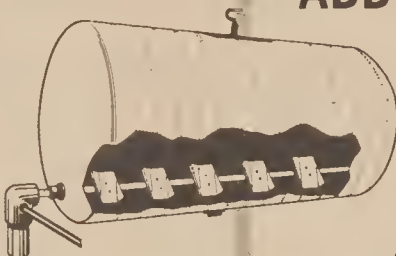
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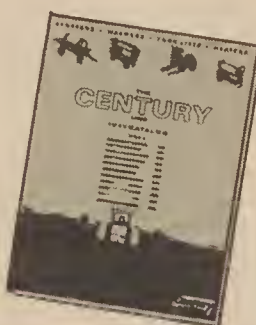
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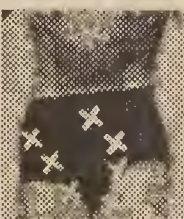
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7463

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892. Crocheted jacket adds charm to any dress or blouse. Shell-stitch, pineapple trim. Use 3-ply fingering yarn. Sizes 32-46 incl.50 cents

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Photo: Westinghouse Electric

Study Lighting for the Home

What sort of lamp is best for studying?

Actually, there is only one study lamp fully approved by the Electrical Testing Laboratories, and it is called a "Better Light Better Sight Lamp." Available from several manufacturers, these lamps provide the correct amount of light evenly distributed over the working surface, and with an upward and outward spread of the light.

There should be no great contrast between the lighted desk and the rest of the room. High intensity lamps and goose necks

are good supplementary lighting for sewing, working on a stamp collection, or applying nail polish, but they are not recommended for studying. The light will be uncomfortably bright and glaring and does not spread upward or outward.

You can use a regular table lamp for studying, but choose it carefully. The shade should be fairly dense, light in color, and about 15 or 16 inches in diameter. Bottom edge of the shade should be at eye level, or usually about 15 inches above the desk top. Use at least a 150-watt bulb. Place the lamp to the left of a right-handed student and reverse the position for one who is left-handed.

DO YOU HAVE . . .

A pattern for a Raggedy Ann doll, 4 to 5 feet tall? LaDeane Kezele, Box 125, Pittsburg, N. H. 03592, is interested in finding such a pattern for the handicapped to use.

Any pieces of "Old English Chintz" china made by Johnson Brothers in England? This request comes from Mrs. J. Stillings, 1 Florence Rd., Middletown, N. J. 07748.

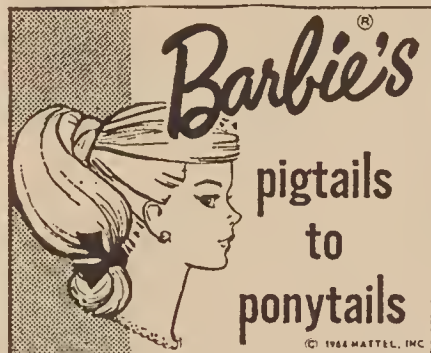
Ox shoes you would send to Mr. Richard Tripp, Box 1335, Del Rio, Texas? Mr. Tripp grew up in Maine and would like some ox shoes from New England to use in his new home.

A recipe for strawberry long cake? Mrs. Luella Swarthout, R. D. 2, Beaver Dams, N. Y. 14812, says the berries were stirred into the batter.

Pieces of Royal China in "Colonial Homestead" pattern (green and white) you would consider selling to Mrs. Norton M. King, South Otselic, N. Y. 13155?

A recipe for Russian Pumpernickle Bread? If so, will you share it with Mrs. Frank Hudson, Line Road, Manorville, N. Y. 11949?

Any idea where Miss Dorothy Vollmer, 38 S. Second Ave., Spring Valley, N. Y. 10977, can obtain dress patterns in sizes 56 to 60?



THE BELLES ARE RINGING

"Hello, this is Barbie. Who is this, please?" Doesn't that sound pleasant and polite? And, that kind of greeting accomplishes a great deal more than just having a charming telephone personality, for it is a foolproof way of preventing nuisance calls. If the person on the other end of the line does not state who he or she is — you have every right to hang up.

Wrong numbers, incidentally, can be handled most graciously without giving away any information. All you do, if someone appears to have that wrong number, is ask what number they were calling.

Why is it that when you're in the middle of washing your hair or taking a bath or trying to get the key into that front door the telephone rings, and when you dash madly to answer same, the caller has hung up? Remember those moments next time you dial a friend, and let the phone jangle at least ten times.

A wonderful gift to give the family for those birthdays or holidays is a note pad and pencil for jotting down messages. A marvelous place to list emergency numbers would be right on the back of the pad. The list should include the fire department, police department, doctor, and nearby neighbors.

Did you know that if you happen to have dialed a wrong number that you can call the operator and tell her so, and your folks won't be charged? And did you know that thousands of people each day forget to take their change from the coin returner in public phone booths? One thing we're sure you know is that the consideration you show for others in telephoning will help everyone get the greatest possible benefit out of phone service.



Baking from scratch is great... but what's in it for you?

All those happy faces are what's in it for you. Plus an affectionate hug—and the satisfaction of baking a special gift for your family and friends.

What's in it for them?

Only real and wholesome ingredients.

And its low cost means there's something in it for your budget, too.

Now Fleischmann's new Rapidmix method makes baking-from-scratch easy.

Just mix Fleischmann's Yeast with your other dry ingredients according to the recipe, then bake.

It's that simple.

For many great recipes—like the Maple Pecan Ring below—just send 25¢ to: "Fleischmann's New Treasury of Yeast Baking," Box 48—E, Mt. Vernon, N.Y. 10559.



"Until I actually saw your Roto-Flo continuous grain dryer in operation, I couldn't understand what it was all about."

"Then what?"



"Was I amazed! And sold. And pleased!"

That's a Midwest farm owner speaking. To his Clayton & Lambert farm equipment dealer. About Clayton & Lambert's patented Roto-Flo* mechanism that converts bins to a low-cost, high capacity, continuous grain drying operation that can match harvest rates, speed drying time and dry your grain more evenly than in-bin drying.

Example: In a 25' diameter bin, set for 5% moisture removal, Roto-Flo can dry up to 1,300 bushels an hour (yellow corn)!

How does it operate? In one mechanical movement, Roto-Flo continuously distributes a 12-13 inch layer of wet grain over perforated flooring, continuously removes dried grain when its drying cycle is completed. Wet and dry grain never mix. Drying cycle time is regulated by means of one, simple adjustable control. Fed by a hopper bin, and moved after drying

to tempering or storage bin, there's no separate loading and unloading time to interrupt the continuous operation.

Our farmer reports: "Just by adding a Roto-Flo, I get faster, easier, better drying. Last November alone I dried 60,000 bushels — exactly double the rate I got the old way with batch drying. I figure my Roto-Flo will pay for itself. It's the best investment I ever made. But I had to see it to believe it!"

So will you. At your local Clayton & Lambert Dealer's. Ask him to demonstrate the Roto-Flo for you, and explain how you can convert your present facilities.

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* Patent No. 3449840

A Yes, Geiranger Fjord in Norway is one of the many you'll visit on the May 31-June 20, 1971

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Garden Talk

by Katy and George Abraham

Jiffy Pellets

AA readers who haven't discovered the convenience of growing tomatoes, geraniums and other plants in the so-called "jiffy pot" are missing a real treat. Jiffy Pellets came out about two years ago. The pellets look like compressed chocolate cookies and consist of peat squeezed under great pressure, then enclosed in a nylon netting.

You soak the pellets in water and they expand, swelling into a container about 3 inches high. Insert a cutting in the top and it will take root, or you can start seeds in it. The roots penetrate the peat, and they can be seen growing straight through the mesh by the time transplanting time rolls around. Then, you just plant pot and all.

Note: Several readers who have tried Jiffy Pellets tell us that in dry spells the roots sometimes grow around inside the pellet. We've also had this happen to us. You can avoid this problem by slashing the sides of the jiffy pot when you set the plant outdoors.

Spindly Rhubarb Stalks

If your rhubarb stalks are pencil-thin, it's a good sign they need dividing. The best time to divide a patch is in early spring. Spindliness also may be a sign your plants need feeding. Rhubarb likes big doses of rotted manure or compost material, 3 to 6 bushels per square foot, and about 5 pounds of 10-10-10 fertilizer for the same area. If you have some liquid plant food such as 20-20-20 or 23-19-17, drench the rhubarb patch with this.

Don't forget to remove the seed stalks before they have a chance to develop. They're worthless and are a drain on the plant. Loosen the soil around your patch and give the roots a good feeding again in late summer. Hot days and a lack of moisture can cause spindly stalks. Also, if your rhubarb is in heavy shade, you're apt to get thin stalks, so move shaded plants into full sun.

Coffee Bean Plant

As a result of a promotional scheme by a large coffee processor, many AA homeowners are proud possessors of a coffee bean plant. Indoors, it makes a fairly good house plant (foliage effect only). A coffee bean plant needs good drainage. Do NOT overwater, as it causes leaves to turn black or curl around the edges. Give it a bright window, but not direct sun. Seedlings grow best at 70 to 75 degrees, and older plants need a night temperature of 55 to 58 degrees for flowering and producing beans... a real accomplishment!

Coffee bean plants tend to get tall and scraggly. When this happens, you can cut out the top to any desired height. This encourages the plant to be bushier which is what you want, since flowers and beans grow on the horizontal growth produced by cutting out the top. You can start your own seed, provided it hasn't been roasted.

Home Grown Tomatoes

This is the time of year I get questions about the "best tomato" for the home garden. As with an automobile or radio, there's no one that's best! My advice is to plant two or three varieties, since all perform somewhat differently on different soils and under different conditions.

Commonly used varieties such as Moreton Hybrid, Big Boy, Glamour, and Fireball — to name a few — are good ones to start with. Of course, there are dozens of others worth trying.

Unlike farmers who have plenty of land, most home gardeners cannot practice crop rotation. They must plant tomatoes in the same spot year after year. As a result verticillium and fusarium diseases build up in the soil. These fungus diseases attack plants through the roots, and no amount of chemical spraying can check them.

Thus, your best bet is to grow plants which resist these diseases. Here are some varieties that are resistant to both fusarium and verticillium: Heinz 1350, Campbell 1327, Supersonic, Superman, and Tom Tom. Varieties resistant to verticillium only include New Yorker, Fireball VR, and Galaxy.

Incidentally, don't be in too big a hurry to set out your tomato plants. Tests at Purdue University show that a soil temperature difference of only 2 degrees can more than double tomato top growth. Soil temperatures, they feel, may be the reason plants get a good start some years and seem stunted other years, even under seemingly identical conditions.

Plant tomatoes in a fertile soil after it reaches 58 degrees. Remember that soil temperature lags behind air temperature, so it might not be a bad idea to check the soil temperature before planting.

AA Garden Clinic

A reader writes, "Last year our garden was loaded with wild morning glory. It climbed all over our plants. Is there a chemical control we can use now to keep it out?"

Answer — Wild morning glory is a tough one to eradicate. Hand pulling is one way to keep it down, but this takes persistence. Some gardeners tell us they spray with white vinegar, and it does a good job knocking out the bindweed. Paraquat is a chemical weedkiller some vineyardists are using for bindweed. A few gardeners put bottles of bleach in the area and then break off runners from the vine, pushing the ends into the bottle. The bleach is drawn up into the roots of the living plants and kills the pesky vine.

VIEWER'S DILEMMA

by Roy Z. Kemp

How can a dummy such as me
Determine a selection
When every brand that's on TV
Is acme of perfection?



Most farmers have already talked to the man with the hybrids they want and the corn growing information they need. They're going with Pioneer. Make sure you get your share of the hybrids that are backed by the world's largest corn research program. Talk to your Pioneer man.



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TUG HILL SCULPTURE

by Vivian Smith*

FARMERS of northern New York's Tug Hill section have been honored by artist-neighbor Edward Scherneck of Turin. He has created a twenty-foot-high iron sculpture designed to illustrate the hard labor that went into old-time farming . . . and to show an appreciation of those who till the soil.

Where is this sculpture located? If you take the Lee Road between Turin and Glenfield you will come upon it. Along here are farms on the ridge where

*Lowville, New York

the Tug Hill plateau levels off for the last time before it drops quickly into the Black River valley. The Lee Road, Milk Road and Whiskey Road converge on the Scherneck property. Look to the east and you'll see a tall silhouette against the sky.

The unexpected beauty of its design is a surprise. The sculpture is made entirely of bits and pieces of discarded farm implements welded together.

Ed Scherneck is an art teacher at Lowville Academy and Central School, Lowville. On sab-

batical leave two years ago, Mr. and Mrs. Scherneck, both artists, traveled extensively in Europe. They were delighted with the many lovely iron memorials called **standards** which they found in rural Austria.

With these in mind, Ed conceived the idea of a piece of sculpture which would relate to the dawn-to-dusk toil of his neighbors. Fresh from a course in welding at the Lewis County BOCES adult education program, Ed scoured abandoned farm land on Tug Hill for discarded farm machinery and tools. When finally completed, the piece was so heavy that it took six men and a truck to raise it and set it in place so it could

be anchored in the ground.

The main shaft of the sculpture is a ten-foot length of 2½-inch pipe. On either side it is flanked by the cutting blades of an old mowing machine. The shaft passes through a wheel center from which scythe blades are suspended. Out of the top of the wheel center are prongs of potato forks which reach up like fingers to hold the large double wagon-wheel rims, 7 feet in diameter.

Within the wheel rim is a lacy design begun with a circle of horseshoes. Welded to these is a web-like pattern of old square nails which are attached to a seven-pointed star made of blade guards from a mowing machine, centered with a harness ring.

On the outside of the rims, the design is further enlarged by the addition of a circle of fork ends of various sizes whose prongs pierce the outer edge of the silhouette in a random fashion of straight, crooked or slightly bent.

What is the attitude of the neighbors who have been honored by this sculpture? They are surprised that anyone would consider their work a proper subject for an artistic creation. But, modest though they are concerning this honor, they are sincerely flattered by it and their opinion has been very complimentary.



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Ed Scherneck created this towering sculpture to honor his farmer neighbors.

Close-up of top shows details of various parts used.



Photos: Lewis County BOCES Graphics Department.

American Agriculturist, March, 1971



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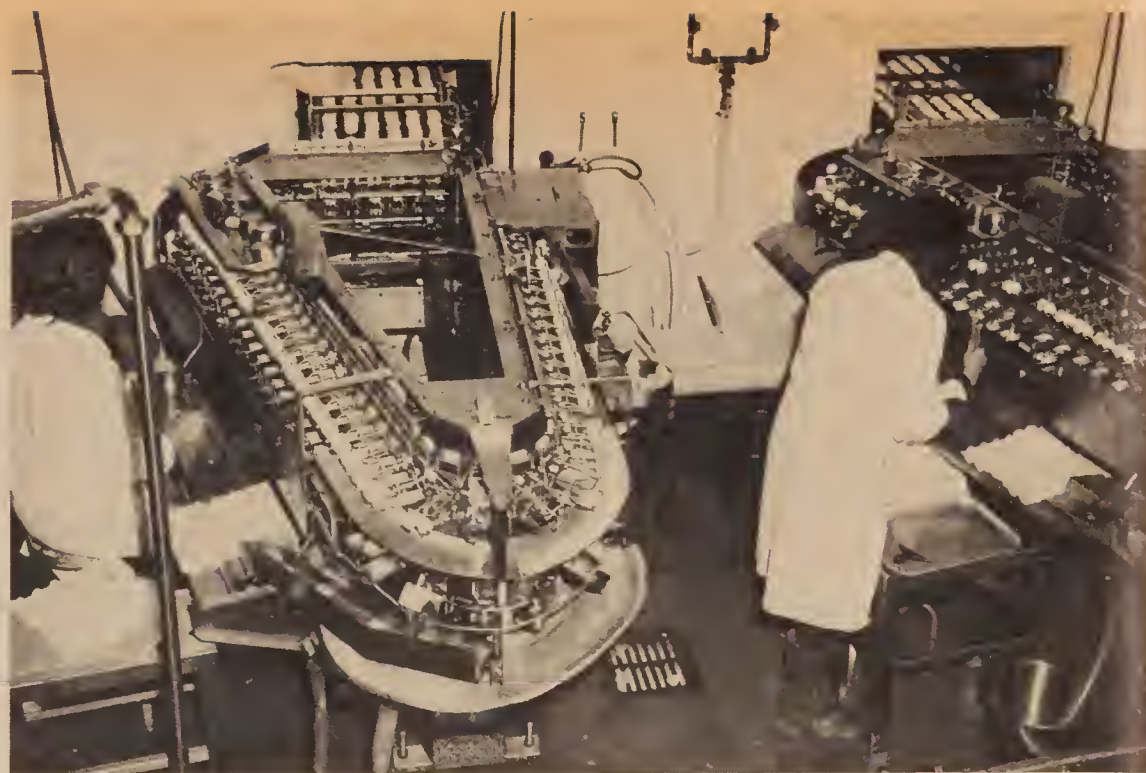


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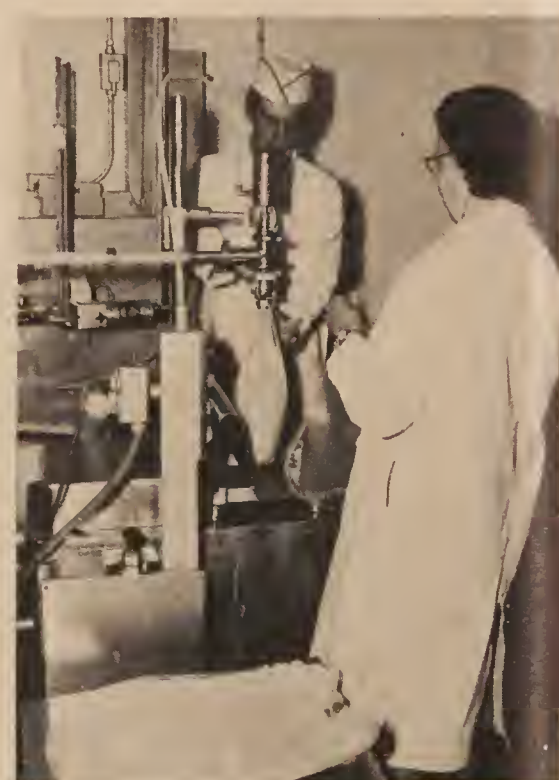
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Eggit, Inc. of Interlaken, New York is one of the most modern egg-breaking outfits in the Northeast. It has two Model 102 Seymour machines for breaking . . . in a spotless plant checked continuously by a USDA inspector.



Eggit president Richard Cunningham gathers some more calluses on his ears.



Whole eggs are placed in plastic bags, then packed in cartons and frozen at the sizable freezer facilities.

USE IT UP

In the January issue of *AMERICAN AGRICULTURIST* appeared an in-depth article on New York State's stringent restrictions on pesticides, which went into effect on January 1. At the time that issue went to press, it was still uncertain as to the disposition of stocks of pesticides already in the hands of users.

Here's the word from the Department of Environmental Conservation:

1. Ten totally banned pesticides are: Bandane, BHC, DDD, DDT, Endrin, mercury compounds, selenites and selenates, sodium fluoracetate, Strobane, and toxaphene. Legally, those possessing these materials may hold them in storage during 1971 . . . until an official pick-up and disposal plan is in operation by year's end.

However, it is now illegal to buy, sell, or use these ten pesticides in New York State.

2. As for the other 62 restricted pesticides, existing supplies in the possession of users may be used by any person within the State until December 31, 1971. The experience of other states indicates this gradual

disposal of the materials through label-approved usage creates the least environmental impact.

EFFICIENCY AWARD

Ray W. Harmony of Mertztown, Pennsylvania, a poultryman with his own ideas about raising high-quality cage birds, is one of 14 recipients of Ford Motor Company's annual Farm Efficiency Awards . . . and the only northeasterner.

The Pennsylvania farmer is one of several poultrymen who formed a corporation for operating a pullet-growing facility. He has facilities to grade and carton his own eggs and markets them locally at premium prices. He uses modified, stair-step cages running the length of two 300-foot houses, each with 12,000 birds.

Harmony doesn't agree with experts who recommend keeping feed in front of their chickens at all times. He makes his layers clean up their feed before they get a fresh batch. Feed is always fresh, with no "left-overs" from earlier feedings, and less waste. The result is a record of only 3.6 pounds of feed per dozen eggs over the past five years.

American Agriculturist, March, 1971

"FLOOR" BIRDS IN CAGES

The newest poultry houses have
hens arranged in an unusual way . . .

by Gordon Conklin

THE poultry industry is noted for rapid change in housing arrangements. The latest to appear is the high-rise house, sometimes referred to as wall-to-wall birds because there are no alleys between cage rows.

Tom Todd of Ludlowville, New York, is well underway in building a new poultry rearing and laying complex. He has completed a brooder house measuring 40×328 feet, and a laying house going 40×376. Inasmuch as the brooder house has the capacity to keep three laying houses (each 40×376 feet) full of birds, the long-range plan is for two more laying units of that size alongside the present one.

Start-Grow

The brooder house starts 30,000 chicks . . . 50 are reared to 20 weeks of age in each 42×48-inch cage. Newspapers are placed in the cages, and feed is thrown by hand on the paper for the first seven to eight days (plus, of course, a full mechanical feeder trough alongside the cages). In about three weeks, the patter of little feet pushes the newspaper through the cage mesh into pits below.

These manure pits are 11 inches deep, and are cleaned out only between batches . . . this job takes 3½ days. A 14-hp garden tractor, equipped with paddles, pushes manure into a cross-conveyor at one end of the building. Between batches, the interior is also cleaned with a high-pressure unit delivering water at a force of 500 pounds per square inch . . . first time over with water, then with a mix of water and disinfectant.

Insulated

The brooder house sidewalls are made of sandwich-board . . . expanded polystyrene (1½ inches thick) between exterior aluminum siding and an interior paper-backed foil forming a vapor barrier. The ceiling has 6-inch insulation bats and vapor barrier.

Heat is provided by eight LP-gas space heaters . . . each rated at 100,000 BTU, and controlled by its own thermostat. A critical point, Tom reports, is that these heaters cannot be vented because of the back-pressure created by the exhaust-ventilation fans.

Light bulbs in brooder house are 25-watt, in rows 12 feet apart, and at a 12-foot interval in rows. Rheostats control light intensity . . . operating at top candlepower for the first two to three weeks, then reduced to prevent cannibalism.

Lights are on continuously for the first 48 hours, then reduced to 13 hours per day until two weeks. From then on, light is reduced 20 minutes per week until they're getting 8 hours of light at 18 weeks . . . then Tom begins to increase light.

Debeaking is done at five weeks, and vaccination for bronchitis and Newcastle at two weeks (water) and again at 14 weeks (fog).

American Agriculturist, March, 1971

Of the brooder house, Tom says, "It really works . . . I don't see where we can gain some more labor efficiency."

Tom's comment also refers to the high-rise, flat-deck laying house where early experience with 30,000 birds indicates that two men could care for 90,000 . . . and still have time to handle the 250 acres of grain crops grown (200 of them corn).

(Continued on page 32)



Captain Tom Todd guides his "ship" . . . the tram that rolls above cages.

Everything you've heard about camper-pickup engines is probably wrong.

Even if you've heard plenty of fireside talk on camper-pickup engines, you probably haven't heard the most important thing: the truth.

That's because opinions usually have one basic starting point: other opinions. And they tend to overlook a few basic facts.

Things like where an engine comes from. Just because it's bolted in a truck doesn't mean it's a truck engine.

Most pickups are powered by car engines. And there's a very good reason why.

Pickup manufacturers, in order to keep costs down, use the parts they have on hand. In effect, they "rob" their other assembly lines. If their other assembly lines have cars on them, they use as many car parts as possible. That includes engines.

Our other assembly lines have trucks on them.

So many of the V-8 engines in our pickups are the same ones we bolt into our big, gas-engined highway rigs.

Like all other manufacturers' engines, they have "two" horsepower ratings.

Manufacturer	Engine	Rated HP.	Net HP.
International	V-304	193.1 @ 4400 rpm	173.0 @ 3900 rpm
	V-345	196.7 @ 4000 rpm	182.3 @ 3800 rpm
	V-392	253.0 @ 4200 rpm	235.9 @ 3600 rpm
Manufacturer "A"	302 V8	205.0 @ 4600 rpm	150.0 @ 4000 rpm
	360 V8	215.0 @ 4400 rpm	177.0 @ 4100 rpm
	390 V8	255.0 @ 4400 rpm	180.0 @ 4000 rpm
Manufacturer "B"	307 V8	200.0 @ 4600 rpm	135.0 @ 4000 rpm
	350 V8	250.0 @ 4600 rpm	170.0 @ 4000 rpm
	402 V8	300.0 @ 4800 rpm	240.0 @ 4400 rpm

The one listed as gross "rated horsepower" is what the engine develops on the test stand. It's usually the horsepower used in advertising.

The "net horsepower" is what you wind up with, once the engine's in the pickup. It's a lower rating because of a horsepower loss in the accessories. You can't avoid losing some of it. All you can do is make sure you don't lose much.

We've taken precautions in that direction. International engines are designed to lose as little horsepower as possible.

What starts out to be a more powerful engine (205 hp. vs. our 193) ends up being less powerful (150 net hp. vs. our 173).

Engines should also last a long time. Ours

do. They're made a little beefier than most engines, to withstand rugged use. And, as the chart shows, they develop their power peaks at lower rpm's than most engines. So they don't have to turn as fast—and wear as fast—as most other engines.

They have to be honest. And they have to deliver the horsepower we promise. That's on the chart, too.

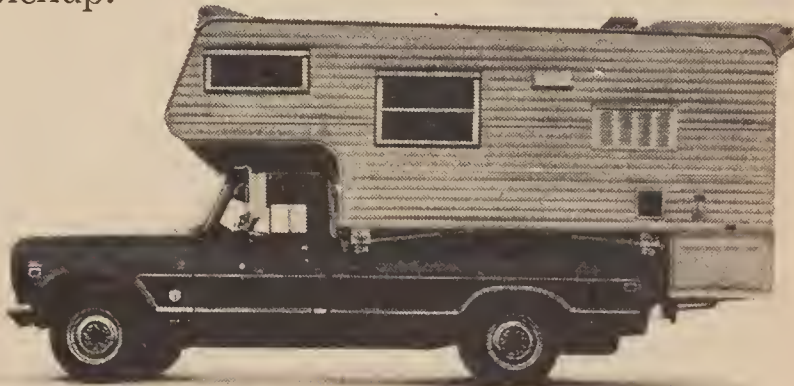
Suspensions play an important part in a camper-pickup's ability to carry a load with stability. That's why an INTERNATIONAL 1210 Camper Special pickup has leaf springs all around. It gives you twice as many points of suspension per wheel as an all-coil suspension system, 33% more than a combination of coils and leaf springs.

A camper-pickup's transmission has to do the work of a truck, not a car. And ours are built with that fact in mind. You can choose from two 3-speeds, two 4-speeds, a 5-speed heavy duty, a 5-speed with overdrive, and a 3-speed automatic. They're all truck transmissions.

Other things on an International 1210 Camper Special pickup's option list include a 4-wheel drive, auxiliary fuel tank, a binful of rear end ratios, bucket seats, air conditioning, AM-FM radios, power-steering and brakes, and more.

What's most important about all of them is that they go together to build a truck. Not just a pickup.

The International 1210 Camper Special pickup.



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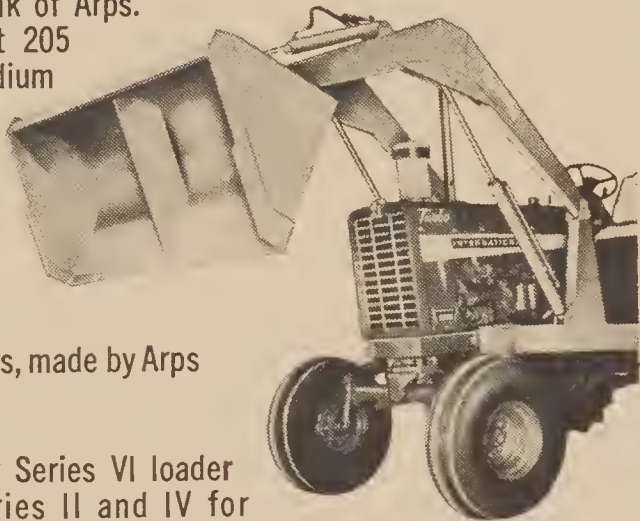
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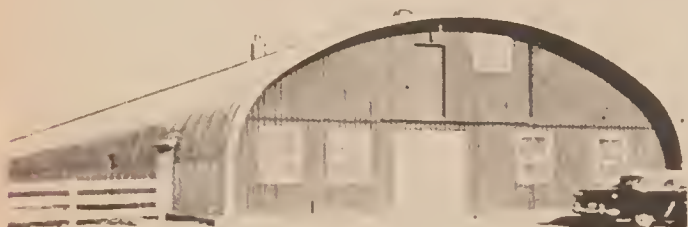


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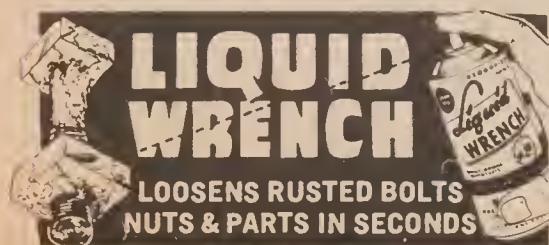
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THINK AND ACT SAFELY



Floor

(Continued from page 31)

There are nine birds in each 18×24-inch cage. Water and feed are delivered mechanically to them, and belts deliver eggs to the egg room.

Manure accumulates in the above-ground pits underneath the birds. It is dried by air moving from perimeter slot inlets located near the eaves, down through cages, then across above the manure toward 12 exhaust fans (each rated 10,000 cfm) located in pit sidewalls . . . on the east side away from prevailing winds. In the pit are six additional fans to circulate air within the pit . . . these six operate 24 hours per day.

No Smell

Manure odors are slight to non-existent. Although the manure could theoretically be left undisturbed for long periods, Tom intends to clean out once a year in order to continue his program of using it as a part of the corn-growing program.

There are three doors on each side of the building to facilitate loading cages with birds moved in through those doors. A battery-operated tram rolls on three tracks to service cages from above; it's floored with steel grating so, that light can reach birds in cages underneath its "parking" place.

The entire laying house slopes one foot in its 376-foot length . . . so water will gravity-feed in the troughs. Water is controlled by a time-clock . . . on for one-half hour, off the next one-half hour, etc. Overflow is drained away so none gets in to the pit.

Golf Balls

Tom uses numbered golf balls to keep track of egg-belt operation. He places the appropriately-numbered "tee-bait" at the far end of each belt (10 in all) in the morning, and can tell when each one has "cleared" that day by seeing the golf ball appear among the eggs at the packing equipment in the egg room.

Chores here include packing eggs daily for wholesale delivery (no grading), and to be sure that all hardware is working properly. Tom believes that management budgets should plan on having buildings and hardware paid off in 10 years. He doesn't look on them as part of the real estate . . . but more as tractors or other depreciable items.

One industry poultry specialist comments that the wall-to-wall concept for poultry houses offers these primary advantages:

—Light and air are the two critical components of poultry environment. Both can easily be kept at uniform levels for all birds in this arrangement . . . and they can be "flooded" with air during hot weather.

—Maximum flexibility in waste management, and a system with minimum problems of air pollution.

—It's a "floor bird" arrangement that retains the labor-efficiency advantages of cages . . . offering unsurpassed opportunity to observe birds.

—Dust is pulled out of the building, not around and around on the birds.

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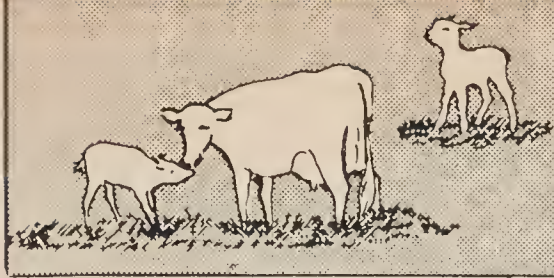
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Here are the 44 **EASTERN CERTIFIED AI SIREs** currently available for service. Their production superiorities are based on artificially sired daughters in DHI herds and summarized in the Jan. '71 Northeast AI Sire Comparison report. The workability-wearability traits are based on Eastern's extensive Trait Appraisal program involving on-the-farm inspections of individual animals. A two star rating provides the greatest opportunity for genetic progress in the trait.

SIRE'S CODE NAME	AI PRODUCTION SUPERIORITY				WORKABILITY		WEARABILITY		
	\$ Val. of Product	Milk	%	Fat	Milking Speed	Dispo- sition	Udder	Legs & Feet	Upstand- ingness
HOLSTEIN									
Robbie	+74	+1,150	0	+41	**	**	*	*	*
Andy	+54	+1,000	-.1	+21	**	*	**	*	*
Marge	+51	+1,000	-.1	+18	*	*	**	**	**
Orlo	+66	+ 950	+ .1	+40	*	*	*	*	**
Buddy	+45	+ 950	-.1	+14	*	*	*	*	*
Piebe	+29	+ 800	-.2	0	*	*	*	**	*
Valet	+30	+ 750	-.1	+ 3	**	*	*	*	*
Earl	+48	+ 700	0	+26	**	**	*	*	**
Ben	+51	+ 500	+ .2	+39	*	**	**	*	*
Bucky	+24	+ 500	-.1	+ 4	**	*	**	*	*
Sea	+20	+ 450	-.1	+ 4	**	**	*	*	*
Hank	+29	+ 450	0	+14	*	**	*	**	*
Burk	+17	+ 450	-.1	0	**	*	*	**	*
Centurion	+16	+ 450	-.1	- 2	*	**	**	**	*
Butch	+25	+ 400	0	+13	*	*	**	**	*
Victor	+26	+ 400	0	+12	**	**	*	*	*
Sherry	+40	+ 350	+ .2	+32	*	*	*	*	*
Adant	+28	+ 350	0	+16	*	*	**	*	*
Kennedy	+21	+ 350	0	+ 6	*	*	*	**	**
Sunliner	+19	+ 350	0	+ 3	**	*	*	*	*
May	+17	+ 300	0	+ 3	*	*	*	**	**
Chap	+16	+ 300	0	+ 3	**	*	*	*	*
Perfect	+20	+ 250	0	+10	*	**	**	*	*
Dadga	+19	+ 250	0	+ 9	*	*	*	**	*
Hiram	+18	+ 200	0	+10	*	**	**	*	**
Bugler	+16	+ 100	+ .1	+12	**	*	*	*	**
Lad	+12	+ 100	0	+ 4	*	*	**	*	*
Elmvale	+ 5	+ 100	0	- 1	**	**	**	*	**
Sexton	+ 6	0	+ .1	+ 4	*	*	**	*	**
GUERNSEY									
Hollirex	+59	+ 700	+ .1	+44	**	*	*	**	*
Emory	+18	+ 350	0	+ 9	**	**	**	**	**
Acme	+13	+ 300	-.1	+ 3	*	*	**	**	*
Phara	+13	+ 250	-.1	+ 4	*	*	*	*	**
JERSEY									
Observer	+50	+ 800	-.1	+30	Sufficient data not available for star rating				
Favorite	+34	+ 600	-.1	+18	*	**	*	*	**
Midas	+26	+ 450	-.1	+13	*	*	**	*	**
Norm	+48	+ 400	+ .2	+43	*	*	*	**	*
Diadem	+11	+ 400	-.2	- 1	*	*	*	*	**
Lotus	+25	+ 300	0	+19	*	*	*	*	*
AYRSHIRE									
Betty	+79	+1,150	+ .1	+52			*	**	*
Beaver	+76	+1,050	+ .1	+51	**	**	*	**	*
Commodore	+54	+ 850	0	+34	*	**	*	*	*
BROWN SWISS									
Laddie	+66	+ 950	0	+46	**	**	*	*	*
Norvic	+35	+ 750	-.1	+15	**	**	*	**	**

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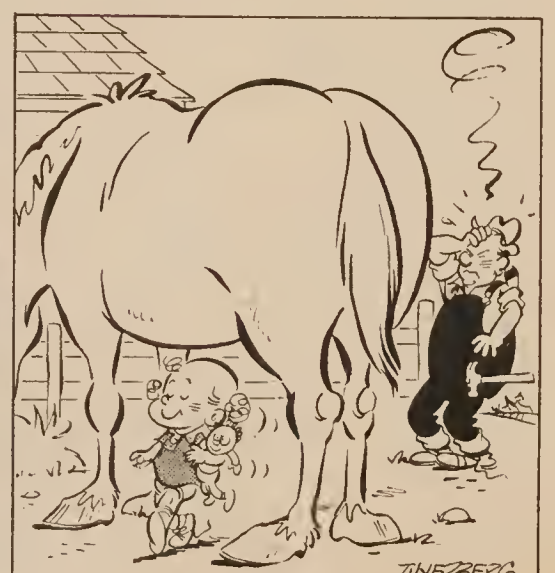
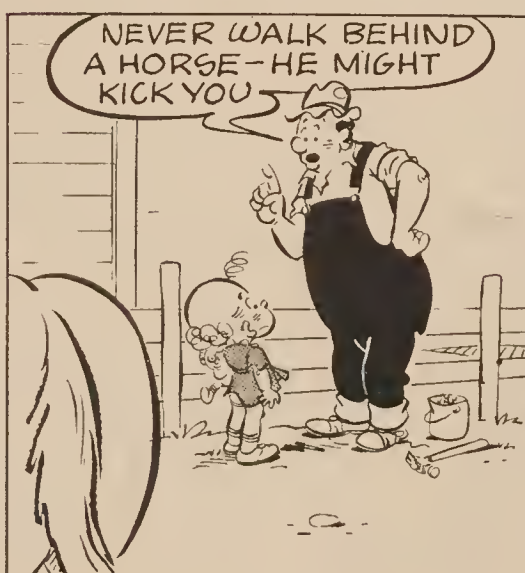
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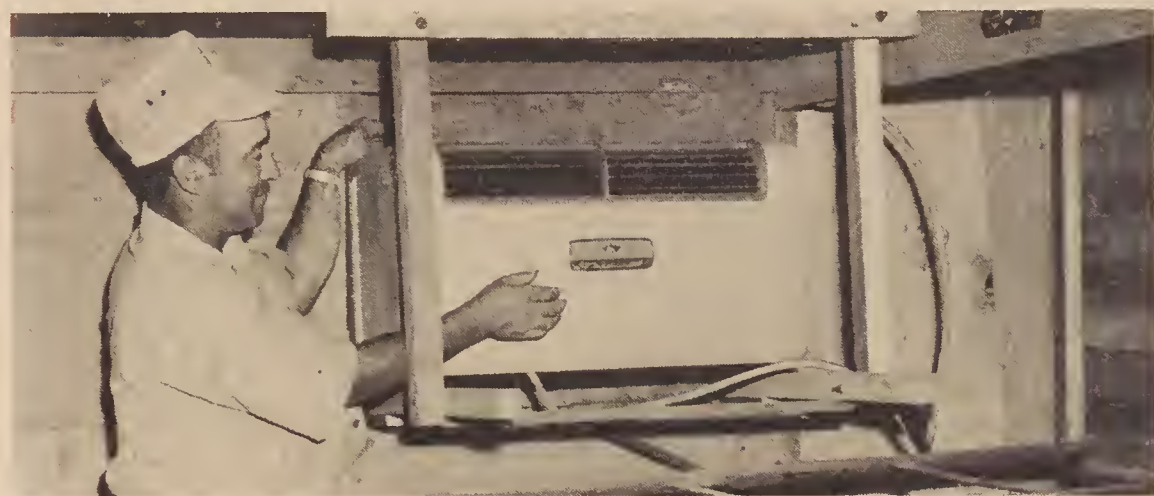
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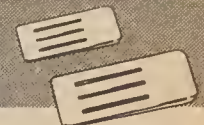
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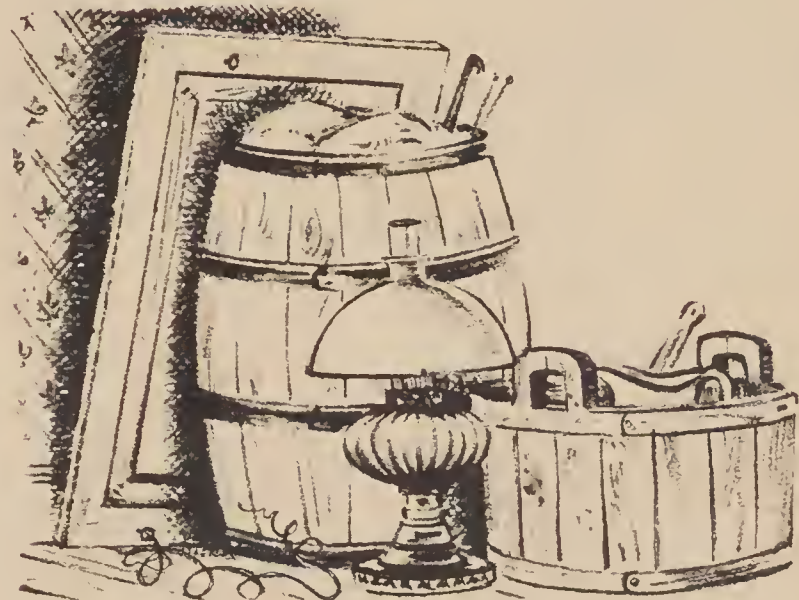
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by E. R. Eastman



The sales of "Journey to Day Before Yesterday" continue to be good because so many who have read it keep telling others about it. Young and old alike get a kick out of learning how their forefathers lived; and youngsters really begin to believe that Grandpa's stories "really happened."

For a copy of this nostalgic book, well-bound and illustrated, send check or money order for \$7.30 (New York State tax included) to American Agriculturist, Book Department, Box 370, Ithaca, New York 14850.

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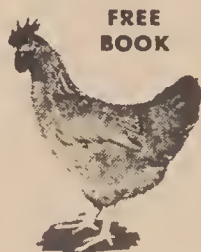
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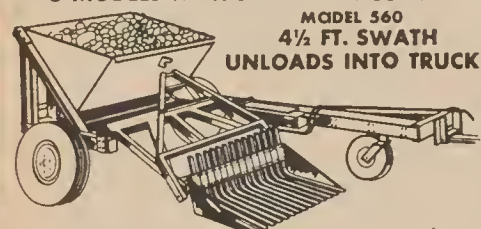


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Gayway Farm Notes

by HAROLD HAWLEY

COMES OUT WHERE?

SOME of you will remember the song which stated that, "You push the first valve down and the music goes down and around and comes out here." A great many are wishing they knew where some of their actions and expenditures will come out!

As an example, a friend whose judgment and business ability are much respected has just committed himself to a whole new corn harvesting, drying and storage program. Now he's asking himself if his new investment of some \$30,000 was the wisest one.

Already others are thinking (and doing) something about reducing corn moisture by cooling the crop rather than heating it. It is cheaper to do the latter and, more important, it gives one the capacity to handle the harvested grain fast . . . fast enough to keep up with a combine running full tilt.

All too often, drying operations become the bottleneck limiting the amount of harvesting that can be done each day.

Sealed Storage

Another friend has chosen to hustle his crop into sealed storage, expecting to sell it later as high-moisture, whole-kernel corn to other dairymen when their supply runs out. He realizes his market is more restricted than it would be if his corn was dried down, but he also notes the increasing market for H.M.C. Now, of course, he is second-guessing himself a little . . . wondering if a tight new concrete-stave silo might not have stored his crop cheaper than the brand he chose.

Fertilizer

The least possible agreement seems typical when any four corn growers get together and try to decide the "right" way to get fertilizer to the place where it will do the most good. The variations are almost endless, with some differences in cost per unit . . . depending on whether it is spread dry for plowdown, liquid or knifed in, put through the planter wet or dry, sprayed on along with the herbicide, before or after planting, etc., etc.

Only one real area of agreement was found in a recent discussion. All agreed that at corn-planting time, nothing should interfere with the dropping of the seeds. To some, this simply means get the fertilizer on (or at least most of it) at any other time and way than with the planter. To another, it means extra attachments and loading devices so he can still fertilize as he plants without losing any but a minimum of time loading his fertilizer hoppers or tanks.

It's almost a job for a computer to figure the lowest final cost of

plant food in the soil when one considers the available forms, the variation in price at the manufacturing plant, on farm, or custom applied. Then to add the cost of equipment to apply, decide what labor charge to use at the particular time of year, etc.

What seems to be evolving for the larger and more successful growers is a whole package of equipment, techniques and sources, unique almost for each farm depending on acreage, existing equipment, facilities and . . . possibly most important of all . . . on available labor supply at the critical time.

And nobody, but nobody, having paid his money and made his choice, doesn't spend a bit of time second-guessing himself and his neighbors. Some of these decisions involve enough money that once a man is committed to a system, he will likely have to stick with it for a spell whether he made the best choice or not!

SLOWLY AND PAINFULLY

Sometimes things happen almost too slowly to be noticed or measurable. You must line them up against a fence post to see if they are really moving. So it is with people's convictions and philosophies.

Farmers have traditionally been individualistic, and some have doggedly stuck with the freedom this gave them. Others have been more willing to surrender a little freedom for the gains available through united action. Thus, co-ops could be formed and supported; farm organization policies could be implemented because individuals were willing to abide by the majority rule.

A review of some of these policy statements over the years reveals some interesting trends. Promotion is one case in point. Through time, the thinking has shifted from a strictly voluntary free-choice concept to the notion that the non-supporters should be forced to pay if a high percentage of their fellow producers have signed up to pay. To accomplish a desired result, there has been willingness to sacrifice some freedom.

Price Paid

As farmers try to strengthen their bargaining position with regard to the sale of their products, a similar price must be paid. To be effective in their negotiations, the spokesmen must be able to commit the membership as to terms, quality, time and place of delivery or non-delivery. In short, each member for whom the negotiations are being done must have agreed to abide by and implement the agreement. Each one has foregone his freedom to negotiate, and to choose his own terms, in order to bargain collectively.

Many co-ops have for years had provisions for deciding what percentage of the crop will be delivered in years of abnormally large supply. The non-marketing of some of the crop can frequently increase the total return to the producer. The farther from market the product is, the more true this is. California growers have long known and practiced this. Northeast producers have tended to put it all on the market.

It's probably safe to say that most farmers in this end of the world still believe in the right to produce and market all they can or want to. Still, it is most significant that various groups are exploring the possibilities of some control over their marketings — control agreed to by majority decision of the producers . . . but control nevertheless. Again, here is willingness to at least consider a little further loss of freedom to achieve some economic benefits.

Closed Shop

Down the road a piece, we will be deciding whether new producers should have the right to a share of the market . . . which implies a "closed-shop" in agriculture. Our wrath has been righteous and vocal at the closed-shop in industry. I can't imagine anyone wanting to see agriculture go this way, yet realistically this is exactly where we are headed . . . and for some pretty obvious and compelling reasons.

Specialization

More specialization on the farm makes growers increasingly vulnerable to price variations. Price variations can be extreme when many fixed costs are between producer and consumer, and when the producer's share of the consumer's dollar is small.

The small number of large and powerful buyers makes it necessary to deal in new ways in order to be able to offer them large quantities of uniform produce over a relatively long span of time. To dicker effectively for other conditions of sale, including price, it's also increasingly necessary to deal from a position of strength. "Equality across the board," some call it.

At any rate, these are the trends. It's a good sign when farmers work, plan, and think together. Whether they will be willing to give up enough freedom to make real economic strides is a question not yet answered.

CHANGE YEARS

Without giving it much thought, it's natural to assume minorities probably are underprivileged. This isn't necessarily so, but now that we farmers have arrived as a minority we can study at first-hand what the characteristics really are.

If you don't think we have become a minority in some people's minds, reflect on President Nixon's proposal to lump the Department of Agriculture in with Labor and Commerce.

Much as I disapprove of many USDA programs, it has always been real important to have someone to represent the industry in the Cabinet, and in various matters before the Congress. This proposal would seem to make near orphans of us. Shove over, you other minorities!

American Agriculturist, March, 1971

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mr. Walter B. Jackson, New Bremen ..	\$15.18
(refund on tool chest)	
Mrs. Walter Crandall, Davenport Ctr.	4.20
(refund on painting)	
Miss Ann Mason, Potsdam	11.95
(refund on needles)	
Mrs. Dorothy H. Denman, Weedsport ..	10.00
(refund on subscription)	
Mr. Otta J. Spahn, Hillsdale	3.95
(refund on catalog)	
Mr. Robert A. Van Wagner, Sherburne	5.67
(refund on order)	
Mrs. Arthur Caswell, Hannibal.....	2.95
(refund on tablets)	
Mr. C. L. Praskine, South Kartright ..	10.00
(refund on premium)	
Mr. Morris Wescott, Central Square ..	147.65
(refund on insurance)	

PENNSYLVANIA

Mrs. Fred K. Shaffer, Wyalusing	50.00
(refund of deposit)	
Mrs. Herbert Kimmy, Centerville	12.28
(refund on cards)	
Mrs. Jacob Burkholder, Denver	13.82
(refund on order)	
Mr. Raymond Root, Corry	11.98
(refund on plants)	
Mrs. Gladys McCutcheon, Harrison Valley	13.00
(refund on arder)	
Mrs. Webb Sivers, Laceyville.....	12.98
(refund on clock)	

MAINE

Mr. Gerald Dupont, New Gloucester ..	6.68
(refund on order)	
Mrs. Ruth Gilman, N. Fryeburg	12.77
(refund on order)	
Mr. Vernal Chandler, W. Paris	78.00
(insurance settlement)	

NEW HAMPSHIRE

Mrs. Freeman Sirles, Meredith.....	5.00
(refund on whip)	
Mr. Calixte Baillargeon, Newmarket ..	38.95
(damage settlement)	

VERMONT

Mrs. Charlotte Badger, N. Clarendon	29.01
(refund on cooker)	

MASSACHUSETTS

Mr. Richard Hanrahan, Boston.....	2.83
(refund on bushes)	

CONNECTICUT

Mr. George Prue, Storrs	6.95
(refund on umbrella)	

INDIANA

Mr. Ray Chansler, Bicknell	4.75
(refund on nursery stock)	

HOME STUDY

"In the Service Bureau column of your October issue a writer thanked you for information on a Directory of Accredited Private Home Study Schools. I, too, would like more information about this directory, who publishes it and where it is available."

You can get a Directory of Accredited Private Home Study Schools by writing National Home Study Council, 1601 18th Street, N. W., Washington, D. C. 20009. There is no charge.

The Accrediting Commission of the National Home Study Council establishes educational, ethical and business standards; examines and evaluates private home study schools in terms of these standards; and accredits those who qualify.

UNCLAIMED

"Several months ago I ordered a wig from Europa Imports, Ltd. for the sum of \$29.95. I received one letter from them apologizing for the delay in shipment. I have written them, requesting that they either ship the wig or refund my money, but I have had no answer.

"They must still be in business as I've seen their ad in magazines. Would you contact them for me?"

American Agriculturist, March, 1971

As our subscriber requested, we wrote Europa Imports, Ltd. at 141 East 44th Street, New York City, two letters, a month apart, and had no answer. Just recently both letters were returned by the Post Office marked, "Unclaimed."

This was not surprising, because about a year ago we were advised that the owners of this firm were David Ratke and Monroe Caine, who were at that time under indictment and awaiting trial on eleven counts of mail fraud in connection with their gasoline-saver device "Turbo-Jet Converter."

MORE ABOUT WIGS

The Bureau of Consumer Frauds and Protection, of the N.Y.S. Attorney General's Office, has obtained a judgment against another mail order wig house, which has ignored demands of customers for refunds and exchanges or often failed to make delivery at all.

Named in the judgment are Masters World Wide, Inc., 2067 Broadway, New York City, and Susy Wigs, Inc., 507 5th Avenue, New York City.

The investigation began when more than 100 complaints were received by the Bureau of Consumer Frauds and Protection from dissatisfied customers in several states. Many customers had waited in vain for the delivery of their wigs for six months or more.

The corporations were ordered to cooperate with the Bureau of Consumer Frauds and Protection in furnishing details about complaints already received and which might be received in the future, and to pay \$1,000 into a fund to make refunds to consumers with valid and substantiated claims.

GREETINGS

"Last August 10 I sent a \$20.00 order for greeting cards to Arrow Greetings, 513 Fourth Avenue S., Minneapolis, Minnesota, and I have never received the cards.

"I have had the cancelled check for some time and have written them several times. I get notes saying the cards will be sent soon or that they have been sent, but I have had no answer to my last letter. What can I do to get my money back?"

Recently, we have had numerous complaints against Arrow Greetings and we have not been very successful in getting them settled. We receive only form letters from the company, stating that the customer should get delivery very soon.

Since some customers apparently are not getting delivery, however, we feel there is no point in our contacting the company further.

If you have a complaint against them, you may wish to write to:

Office of the Attorney General
Consumer Protection Unit
State Capitol Building
St. Paul, Minnesota 55101
or
Postal Inspector in Charge
St. Paul, Minnesota 55102.

Crushed By Bull



Frank Everitt of Millerton, Pa. received checks totaling \$2,039.43 from agent Gerry Taylor, left, of Erin, N. Y.

Mr. Everitt was helping to load a bull, which he had sold, onto a truck. The bull slipped off the ramp and fell on Mr. Everitt crushing his left leg. Suffering a severe fracture between the ankle and knee, Mr. Everitt spent nineteen days in the hospital. His hospital and doctor bills were \$1,371.00. Protected by four North American policies Mr. Everitt drew \$1,189.43 in medical expense benefits and \$850.00 in weekly income benefits for a total of \$2,039.43.

OTHER BENEFITS PAID

A friend's name may be in this list.

Mary S. Brennan, Altamont, N.Y.	\$ 109.28	Carl J. Nasse, Sr., Canajoharie, N.Y.	\$ 335.00
Fell skiing—broke leg		Slipped and fell—inj. hip	
Daniel J. Coleman, Almond, N.Y.	1498.94	Thomas J. Oevereaux, Appleton, N.Y.	346.42
Struck by car—broke hip		Caught in belt—inj. hand	
Larry Frank, West Valley, N.Y.	543.70	Arthur Brown, Cassville, N.Y.	495.00
Auto accident—cut scalp		Auto accident—inj. knees, chest	
James F. Turk, Union Springs, N.Y.	191.42	Lawrence J. Huie, Geneva, N.Y.	154.08
Fell into grain elevator—broke heel		Fell off ladder—inj. wrist and ankle	
Joseph Paige, Moravia, N.Y.	114.35	Christian Paffenroth, Montgomery, N.Y.	2015.00
Cut by power saw—injured knee		Caught in P.T.O.—broke feet	
George Martin, Jr., Findley Lake, N.Y.	104.50	Wilfred Miller, Albion, N.Y.	650.10
Snowmobile acc.—broke wrist		Fell off ladder—broke leg	
Allene L. Gabriel, Clymer, N.Y.	1197.14	Sarah B. Van Ouzer, Pulaski, N.Y.	468.36
Auto accident—mult. injuries		Slipped and fell—broke wrist	
Kathleen Byrski, Horseheads, N.Y.	500.49	Michael Skramko, Richfield Spngs., N.Y.	443.41
Tractor accident—head injuries		Caught in silo unloader—inj. hand	
Oonovan Houghtaling, So. New Berlin	248.56	Carlton Hallock, Gilboa, N.Y.	1156.21
Caught in P.T.O.—injured leg		Kicked by cow—inj. knee	
Oougias O. Santamore, Churubusco, N.Y.	300.00	Delores L. Billings, Prattsburg, N.Y.	1807.26
Hit by cow—broke rib		Fell from ladder—injured shoulder	
Sophie McCafferty, Hudson, N.Y.	246.86	Hobart W. Coon, Sr., Addison, N.Y.	1238.86
Car hit in rear—multi. bruises		Caught under tractor wheel—broke ankle	
Rose E. Allen, Marathon, N.Y.	100.00	John F. Troyan, Aquebogue, L.I., N.Y.	1114.10
Tripped on rug—broke wrist		Caught between belt, pulley—inj. hand	
Wesley Kinney, Blodgett Mills, N.Y.	1187.32	Wilbur Oувall, Orient, L.I., N.Y.	240.00
Auto accident—injured leg		Fell down steps—broke arm	
George M. Hillis, Davenport, N.Y.	650.00	Susan E. Johanson, Spencer, N.Y.	126.50
Ran over by tractor—broke leg		Fell off sled—inj. wrist	
Robert S. Oickman, Oelhi, N.Y.	1197.14	Larry Lee Liddington, Brooktondale ..	560.56
Gunpowder burns—inj. face, arm, thigh		Auto accident—broke wrist	
LeRoy Jewert, Chaffee, N.Y.	122.86	Kenneth OeMay, Newark, N.Y.	476.47
Ladder fell—sprained knee		Fell riding bike—broke leg	
Paul Wittmeyer, Springville, N.Y.	180.00	Margaret Anderson, Bliss, N.Y.	153.58
Fell from truck—broke shoulder		Fell skating—cut scalp	
Linda Tuttle, North Bangor, N.Y.	580.00	Denise E. Roy, Gillett, Pa.	121.30
Auto accident—injured neck		Fell on porch step—broke ankle	
Donald Cary Richards, Little Falls, N.Y.	985.42	Mary A. Shute, Kingston, N.H.	1295.00
Knocked down by heifer—inj. shoulder		Slipped on rug—broke hip	
John Gillen, Little Falls, N.Y.	1525.70	Rose A. Tiver, Medford, N.J.	881.93
Gasoline explosion—burns legs, arms, face		Slipped off step—broke arm	
William J. O'Connor, Watertown, N.Y.	119.28	Vernon E. Roszel, Cranbury, N.J.	608.64
Furnace exploded—inj. eyes		Tractor hit by car—inj. back, neck	
Gary W. Zawatski, Watertown, N.Y.	283.52	B. Constance Pollard, Greenfield, Mass.	700.00
Thrown off snowmobile—inj. neck		Fell over a cement block—broke hip	
Freeman Chapman, Glenfield, N.Y.	285.00	Dorothy Brown, Shelburne Falls, Mass.	1100.00
Stepped on stone—inj. knee		Stepped on stick—punctured leg	
Ambrose Bush, Lowville, N.Y.	300.00	Eva B. Haglund, Waterville, Maine	760.00
Crushed by cow—broke ribs		Auto accident—broke legs	
Ooris C. Beecher, Livonia, N.Y.	345.00	Harold Keyser, Andover, N.H.	275.00
Auto accident—whiplash		Log fell from truck—broke leg	
Nellie E. Fisher, Canastota, N.Y.	203.42	Ivis Gaudette, Claremont, N.H.	615.71
Fell in pothole—broke elbow		Auto accident—broke arm	
Ruth Case, Sheds, N.Y.	387.14	Winfred C. Boyden, Cambridge, Vt.	155.70
Hay bale fell—injured back		Knocked down by cow—inj. ankle	
Marcia Ann Leverens, Rochester, N.Y.	200.47	Allduiph S. Bovat, St. Albans, Vt.	1405.00
Auto accident—cut scalp		Fell—inj. arm, pelvis, shoulder	

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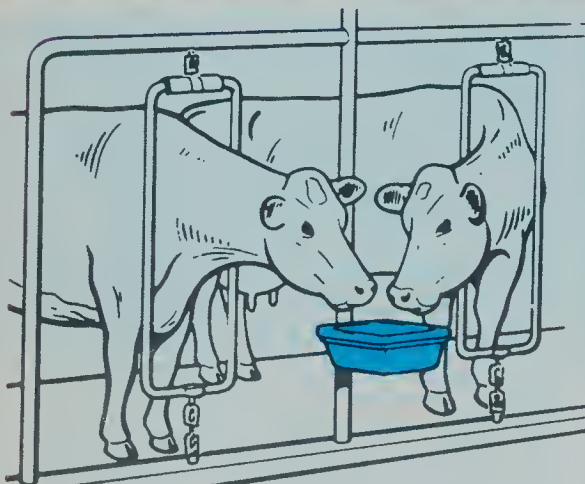
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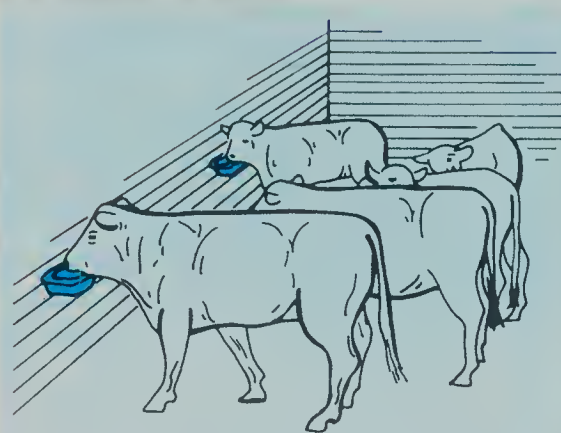


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Castile
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North Java
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BINDERY

APRIL 1971

American Agriculturist
and the
RURAL NEW YORKER

For The
*Northeast
Farmer*



VACCINE FOR MAREK'S

The poultry industry is notorious for making massive changes in technology at a very rapid rate. A case in point is the modification in housing that has left countless laying houses standing amidst their own obsolescence across the Northeast.

A more recent example involves the development of a vaccine for the control of the most virulent form of avian leukosis . . . the dreaded

Marek's disease (MD). For years, this grim virus has cast its shadow across the poultry flocks of the land . . . killing 50 percent or more of a flock at worst, and at best combining a production-reducing stress with a lower level of fatality.

Vaccination

Researchers at the USDA's Regional Poultry Research Laboratories

at East Lansing, Michigan, developed in 1970 a technique for successful vaccination of birds against MD. It suddenly became a "must" for chicks to be vaccinated . . . because of the dramatic differences in susceptibility to MD between protected and unprotected chicks.

In New York State, the only State-licensed producer of the vaccine is the Babcock Poultry Farm, Inc., headquartered at Ithaca. Dr. Emil Gelenczei is Babcock's Director of Poultry Health, and is in charge of producing the vaccine. Here are some of his comments from a recent interview:

Is the new vaccine effective against lymphoid leucosis?

No, it is specific against Marek's

disease, but does not reduce lymphoid leucosis. However, only about 10 percent of the leucosis problem is caused by the lymphoid form . . . which, unlike MD, can be controlled by strict sanitary procedures.

What will be the impact of the vaccine on the poultry industry?

Production will be stimulated by the fact that fewer birds will die . . . and there will be reduced stress on those that live. Previously, many birds survived exposure to MD, but their rates of egg production were reduced by the stress it created.

In general, research indicates that mortality from MD will be reduced by vaccination to one-tenth of the level that would be expected without vaccination.

Could you give us a layman's explanation of how the vaccine works?

Well, Marek's disease is caused by a **Herpes virus**, a type of virus of which there are many kinds. The kind of Herpes virus found in turkeys is benign . . . causing no disease symptoms in either turkeys or chickens.

However, when chickens are vaccinated with an isolate of the Herpes virus of turkeys, a "blocking effect" is created in a high percentage of the treated individuals. Vaccination in this case does not confer an immunity through the creation of legions of antibodies. Rather, MD virus . . . which eventually gets into the bloodstream from some source of infection . . . is "blocked" by some little-understood process.

Is it practical for a poultryman to vaccinate his own flock?

In my opinion, no. It is far more practical to vaccinate chicks at one day of age at the hatchery . . . before possibility of exposure to MD. It's a race between MD and the vaccine's blocking effect; as in football, it's important that the blocker gets off the line early in the play!

All chicks are being vaccinated before leaving our hatchery, and the company is selling vaccine to other hatcheries in compliance with its State-issued license.

Editor's note: Dr. Gelenczei was born in Hungary, and was trained there as a veterinarian and microbiologist. Although occupying a responsible position in the pharmaceutical industry in that country, he decided to leave with his family when the Russians smashed with an iron fist the Hungarian uprising in 1956.

Over the years, it has been my privilege to visit with a substantial number of people who have fled foreign lands to begin a new life in America. In general they come from the top strata in terms of education, ambition and inherent capacity. Our nation has been immeasurably enriched by their infusion into the mainstream of our society.

Those who seek to destroy our nation because it does not fully meet their expectations would do well to visit with those, like Dr. Gelenczei, having first-hand knowledge of why they accepted great personal risks in order to escape to these United States.

Will it pay me to put more acres in corn?

"It sure will!" says Ben Hauenstein, Vice President—Agricultural Financing for The First National Bank of Chicago. "Carry-over supplies of corn are down. Prices are up. The Feed Grains Program has been modified to encourage corn production. So there's plenty of profit opportunity for you, especially in areas where blight was not serious last year."

DeKalb agrees with Mr. Hauenstein's appraisal of the situation. And, we recommend that you plant the hybrids that turned out the best yields last year—in your fields or your neighbors. It's hard to beat the record of DeKalb XL hybrids. For example, DeKalb has twice placed first in the National Corn Yield Contest. And, in 1970, more state winners (19) grew DeKalb than any other brand. That's performance.

The opportunity for profit with corn does exist. Go with corn on more acres this year. See your DeKalb dealer now for varieties he recommends.

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Rugged, dependable for top yields. Good-sized ears, sturdy stalks . . . a great dual-purpose corn.

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Advertising Representative,
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OUR COVER

Well, folks, we've made it through to grass another year! This delightful scene was shuttered at the farm of Stanley Kershner of North Tripoli, Pennsylvania. Photo: Doris Barker

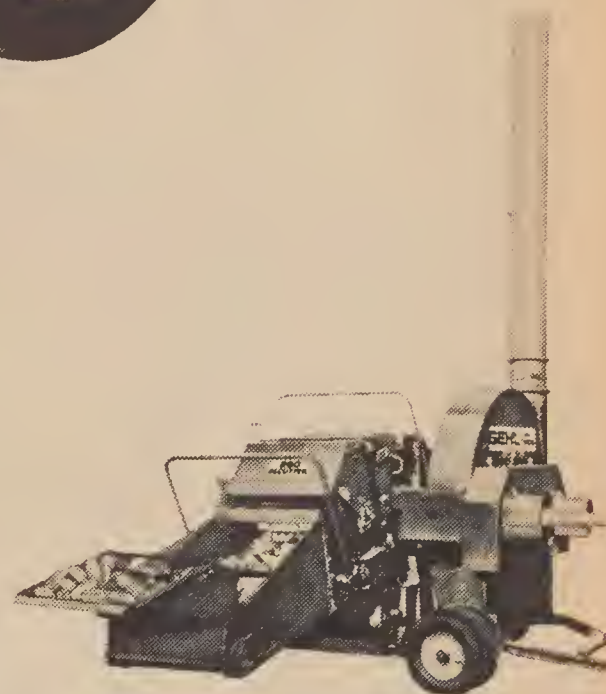


Blasts



... with power to spare. The powerful Gehl 55" Hi-Throw Blower uses a tough six-bladed fan whirling at 540 RPM. It conserves and uses every bit of air power it produces. Here's power to put any material into the tallest silos. A water intake allows you to add water to crops . . . keeps the rim free of haylage deposits. Features include an adjustable outlet, "Quick-Touch" leveling, slip clutch, emergency apron clutch, convenient fan adjusting, and more. It's Gehl quality all of the way! ■ Add the Gehl RC800 Recutter now . . . or later. When selecting a Blower, however, remember . . . the Gehl 800 Recutter fits *only* the Gehl 55" Hi-Throw Blower. ■ Ask your Gehl dealer for a demonstration of the powerful 55" Blower and the 800 Recutter.

At right: RC800 Recutter works with 55 inch Blower.



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EDITORIALS

by GORDON CONKLIN



GUEST EDITORIAL

The struggle of men to achieve responsive democratic political institutions has been long and difficult. The struggle to retain them will go on forever. This is a crucial page of history that the parental group must try hard to convey to those who will be tomorrow's parents.
— Herrell DeGraff, *American Meat Institute.*

HEARD AT DDI

Dairy Development, Inc., is sponsored by 24 northeastern milk cooperatives and agribusiness corporations. Its purpose is to develop... in cooperation with the USDA's dairy-product research people... new food items that will help sell more milk.

At the organization's second annual meeting, a report was made concerning an iron-fortified milk called VIM 'N VIGOR presently involved in large-scale taste tests and market research. Those in attendance had an opportunity to quaff some MOD (milk-orange drink)... a truly delicious refreshment that retains the taste of orange juice without curdling the milk. Work is also underway on milk custards, and on the creation of new whipped toppings that will be competitive with present imitation products.

The high mortality rate of new food products in the marketplace was discussed... only 7 of 100 new food items survive twelve months after introduction. There is constant and relentless pressure on every item taking up space in the supermarket... if it doesn't move in adequate volume, it is replaced by something that does. It's a kind of "Space Race" right here on earth!

The Birdseye Division of General Foods is launching on April 1 a new food product called Thick and Frosty... a convenient milk shake concentrate for use at home. It calls for using two-thirds concentrate (containing a little milk solids), and one-third milk for creating a delicious milk shake in the kitchen.

I found the DDI meeting stimulating, providing some tangible evidence of accomplishment on behalf of northeastern dairymen. It is an encouraging example of dairymen working together across a broad spectrum of geography and organizations.

Its activities have already begun to pay off... and hold even greater promise for the future.

THE GREATEST POLLUTER

At the last meeting of the NYS Agricultural Society, I heard a climatologist report on research concluding that the most significant single source of world air pollution is **volcanic ash**.

A few years back, a botanist at the Nevada Research Institute reported on the output of terpenes and esters by coniferous trees and their relatives... at annual tonnage levels, he reported, **10 times** that of man-created pollution. Terpenes are closely related to the commercial pesticide **toxaphene** (now totally banned in New York State).

The Weed Science Society of America recently held a seminar at which a report was made that more than **20 million** Americans are severely plagued with hay fever... primarily caused by airborne pollen from plants, especially 60 species of ragweed. Poison ivy, poison oak, marsh elders, sage bushes, goldenrod, and many more were all listed as "blackhats" causing the annual drama of sneeze-and-suffer.

It appears to me that the ongoing forces of nature are by far the greatest polluters of our world. The list is **much** longer than I indicated... including also such things as smoke from forest fires started by lightning strikes, sandstorms, the natural erosion that muddies streams, etc.

Some of my ecologically-concerned friends greet my foregoing statements with, "All right, you muttonhead. I suppose now your Neanderthal attitude will lead you to conclude that we

should abandon our anti-pollution efforts!"

Not at all, folks. Let's try to make the world a sweeter-smelling and more livable place by reasonably minimizing pollution caused by man. But let's do it with pollution in perspective... and not raise our expectations for total and instant success so high that the inevitable letdown will add disillusion to our burdens!

For the fact is that... even if all waste-product creation by man were reduced to zero... there would still be in our world an enormous amount of what is now labeled as pollution.

NOT BY BREAD ALONE

A deep-seated distrust of science and technology seems to be growing in these United States. Many seem to long for the good old days... ironically, this seems especially true of the young, whose dress and hair styles hark back to a century ago.

I visit with people who voice dark suspicions about the wholesomeness of our food supply, claiming it is all contaminated by pesticides and fertilizers.

There are others afraid of mercury in the tunafish... of cholesterol in the butter... of radioactivity from nuclear power plants... and on and on.

Still others decry the space program, blaming it for all manner of calamities afflicting mankind.

Science and technology have not betrayed us... we expected too much of them. As with anything from which we expect too much, we have turned upon them with hatred when the results we sought were not forthcoming.

We dreamed that science could lead us to untroubled lives... to the fulfillment of our deepest needs. Our imaginations created fantastic visions of a Utopia where all men could live comfortably at peace in a world supported and stabilized by the wizardry of science and technology.

But the truth is that man's needs are spiritual as well as physical, and that he has never found fulfillment solely in the works of his hands or brain. As the Galilean commented so long ago... and as is the case today, "Man does not live by bread alone."

The wondrous cornucopias of plenty fashioned by our scientists and technicians are valuable allies... a means to an end, but not the end itself. A test tube can be instrumental in the development of healing medicines, but no test tube ever created compassion or inner serenity.

If we could see science for the useful, but limited, tool that it is... and not as a magic wand that can solve all our problems... we could cease to condemn it as some form of evil sorcery.

And, above all, if we can reestablish a deeper relationship with our Creator... then the irrational fears that haunt our days would diminish. The man whose faith is directed toward a push-button is certain to be disappointed.

We have worshipped at the altar of science... only to curse the false god when its magic lamp did not adequately perform. We should have used that altar from which to fashion the hoe handles and building blocks of daily life... and worshipped instead at the altar of the spirit, finding in the ageless quest for communion with a Supreme Being the living waters that quench our thirst.

BATTLE OF THE BOYCOTTS

California farmers have been caught in the middle between Cesar Chavez and the Teamster's Union. Chavez's union, called UFWOC, forced grape growers to their knees with a secondary boycott... and found the experience so profitable that the Golden State's lettuce growers were next lined up in UFWOC's sights.

The problem is that the Teamster's Union, representing workers, **already** had labor contracts with the lettuce growers. Lo, and behold, the Teamsters at the New York City Hunt's Point Market announce they won't handle lettuce, grapes, or any other commodity bearing UFWOC's label!

Predictably, the Senate at Cornell University mounted its trusty white horse and rode bravely off to joust with a windmill that is really a jurisdictional dispute between unions... enjoining the University from purchasing any lettuce **not** bearing the UFWOC label. This bit of ivory-tower agitation led one observer to comment, "Never have so few done an injustice to so many on the basis of so little information!"

At the head of the list of priorities of farm organizations should be the quest for workable federal legislation setting up the legal framework for the unionization of farm workers.

ENFORCED SUICIDE

Two northeastern states... New York and Rhode Island... share the dubious distinction of being the only ones in the United States that require unemployment insurance payments to strikers. Inasmuch as employers pay unemployment insurance costs, the law thus requires the employer to help finance a strike against himself! In a country where the free ride becomes more socially acceptable with every passing day, this arrangement encourages prolonged strikes... and does an injustice to the principles of collective bargaining.

If we taxpayers refused to pay taxes... do you suppose the legislative bodies and governmental bureaucracies would pay our fines, and put up bail bonds for us? Hardly... because then it would be **their** ox being gored!

THAT REMINDS ME...

A city man seeking country living had responded to an advertisement telling of a farm for sale.

The farmer showed him around the place; the prospective owner wanted to see every acre.

"Gosh," the city slicker said, "this farm is terribly stony!"

"Aw," the farmer replied, "you're just uninitiated in these things. You see, the stones draw the sun's heat in the spring and help the soil warm up faster. In addition, the stones break down over the years and give minerals to the soil. They're really a great asset!"

They walked on a bit further and finally came to a line fence.

The city man exclaimed, "Your neighbor doesn't like stones very well... look at how he has them all piled up!"

Thinking fast, the farmer came right back. "You've got that all wrong, too... he just hasn't had time to spread 'em yet."

State Senator William T. Smith (right) presents a \$5,000 check to Joseph P. King, general chairman of the College of Agriculture Fund.



"CADILLAC" SMITH CONTRIBUTES

AWAY back in 1961, farmer William T. Smith of Big Flats, New York, became a national sensation. He accepted money from Uncle Sam for not growing corn, used it to buy a brand-new Cadillac . . . then drove it to Washington carrying a big sign thanking Secretary of Agriculture Orville Freeman for the handout. Needless to say, Orville . . . and lots of other politicians and bureaucrats . . . did not see any humor in the situation!

Back at the ranch, though, Bill found a lot of folks cheering his action . . . and many were willing to elect him to public office. He became a State Senator from the 48th District, and has held the job ever since.

Since 1961, though, Senator Smith has refused any further crop-adjustment subsidies . . . and he calculates

that he has thereby foregone \$100,000 in federal payments to which he was legally entitled. In 1970, he acted on another inspiration for using subsidy money in a dramatic way.

"Why not," he wondered, "help some worthwhile cause with money that otherwise will be diverted for some other purpose?" No sooner said than done . . . he applied for his 1970 payment . . . got the \$5,000 . . . and presented it to the College of Agriculture Fund at Cornell University!

Now he challenges other farmers in New York State to make legitimate claims through the federal feed grains program, and then to give those funds to benefit young people seeking degrees from the New York State College of Agriculture.

Dates to Remember

Apr. 1 - NYS Corriedale Association Planning Meeting, 7:30 pm, Farm & Home Center, 480 N. Main St., Canandaigua, N.Y.

Apr. 1-2 - Northeast Dairy Conference, Syracuse Hotel Country House, Syracuse, N.Y.

Apr. 2-4 - Annual Franklin County Maple Festival, St. Albans, Vt.

Apr. 3 - NYS Guernsey Breeders' Cooperative Annual Meeting, Holiday Inn, Poughkeepsie, N.Y.

Apr. 5-9 - Farm Animal Reproduction and Artificial Insemination Short Course, University of Connecticut, Storrs, Conn.

Apr. 14 - NYS Holstein-Friesian Sale, Bergen, N.Y.

Apr. 15 - Federal Income Tax Return Deadline (non-farmers).

Apr. 15 - NYS Black and White Show, Cortland, N.Y.

Apr. 17 - NY Angus Association Sale, Cornell University, Ithaca, N.Y.

Apr. 17 - Pennsylvania Holstein-Friesian Association Calf Sale, Farm Show Building, Harrisburg, Pa.

Apr. 18-23 - National 4-H Conference, Washington, D.C.

Apr. 23-24 - Vermont Beef Cattlemen's Short Course, Univer-

sity of Vermont, Burlington, Vt.

Apr. 24 - Annual Schoharie County Maple Festival, Village Green, Jefferson, N.Y.

Apr. 24 - National Trotting Pony Sale, Farm Show Building, Harrisburg, Pa.

Apr. 29 - Pennsylvania Equine Council Meeting, Embers Restaurant, Carlisle, Pa.

May 1 - Rockingham Craftsmen's Fair, Town Hall, Rt. 111, Kingston, N.H.

May 1 - NY Beef Cattlemen's Association Feeder Calf Sale, Pike, N.Y.

May 8 - NY Beef Cattlemen's Association Feeder Calf Sale, Chatham, N.Y.

May 14 - Feeder Pig Sale, Caledonia, N.Y.

May 16 - Third Annual NYS Buck and Kid Show, Fairgrounds, Altamont, N.Y.

May 17-22 - 10th International Flower Show, Hess's, Allentown, Pa.

May 23 - Pioneer Valley Wool Show, Fairgrounds, Cummington, Mass.

May 31 - Memorial Day (according to Uniform Holiday Bill effective 1971).

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TAKE TIME  OBSERVE LABEL DIRECTIONS

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MORE FOR GROWTH AND HEALTH



Spuds and turf benefit from:

WATER, UNLIMITED

by Charles L. Stratton

THE long, wide, paved driveway at Tuckahoe Farms near Slocum, Rhode Island, serves as a landing strip for Win Tucker's four-place Mooney . . . as well as several other private airplanes.

This season, Tuckahoe Farms will have one of the biggest lawns in New England . . . more than 200 acres of velvety-green carpet known as Tuckahoe Turf. What's more, when it's lush and green as a fresh hundred-dollar bill, Win Tucker will cut it into strips and sell it by the square foot.

Unknowingly, you may already have some connection with Win Tucker through a branch corporation known as Hollis Tucker, Inc. (whose operating manager is cousin Hollis Tucker). It does a "big volume—low margin" business in growing and dealing in potatoes exclusively for chipping. Spuds are supplied on contract to such chip manufacturers as Cains, Frito-Lay, A & P, Wise, and the Tom Huston Peanut Co.

Irrigation

Whether growing choice chipping potatoes or premium quality turf, Tucker depends on irrigation. Although he uses both diesel and electric irrigation, his preference is electric for maintenance-free irrigation without major problems. As he puts it, "Push a button and you're in business."

Win Tucker, a 1943 aeronautical engineering graduate at the University of Rhode Island, helped his father raise 69 acres of potatoes on the home farm for a year before going into the U.S. Navy. On his return, he went into raising potatoes as a lifetime business.

Last year, Hollis Tucker, Inc., grew some 690 acres of potatoes on land away from the home farm.

Mainly, acreage is rented from non-farmers on industrial sites, and land being held for development. Fields range from 3 to 250 acres, all within 15 miles of the home farm.

Potatoes grown are Katahdins, Chippewas, Norchips (a new variety well liked by Tucker), and the special custom-grown varieties owned by the big chip companies. Yields are generally 300 hundredweight per acre and up. Two potato harvesters are used, each averaging about an acre per hour. One man operates the harvester and a second man drives the truck.

The Tuckers plow and harrow in the spring, take soil tests at all locations, and apply commercial fertilizer formulated especially for chipping potatoes. Nitrogen is generally limited; otherwise, potatoes do not chip well. No cow manure is applied because the labor required is too expensive. Directly after harvest, all potato land is seeded down with winter rye.

Two portable diesel units are used to irrigate rented potato land. Though Tucker prefers electric-powered irrigation, he points out that three-phase electric installations are not adaptable for moving. Current for the pumps requires special lines and transformers; someone has to pay for this installation. As the landowners are non-farmers, the installation would be rather expensive for temporary rental.

When shipping potatoes, four warehouse employees load trucks. Potatoes are graded and bulk-loaded directly into trucks operated by gypsy truckers moving citrus up from the South. These independent truckers move potatoes to various destinations along the coast, including Jacksonville and St. Augustine, Florida, averaging a round trip a week.

Storage temperatures are more critical than for table potatoes as chilled chip potatoes are more difficult to cook. The home-farm warehouse holds around 150,000 hundredweight. Other storage facilities are available.

Because Hollis Tucker, Inc. deals in potato futures (delivering pre-season contracts before the crop is planted), and doesn't raise all it sells, the firm has to buy some potatoes elsewhere. In the Mooney, a plane Win Tucker refers to as the Volkswagen of the aviation industry, he makes business flights to Florida, and even out to Michigan, buying potatoes to meet the contracts.

Instant Lawns

Tuckahoe Turf is a new venture. Win saw the trend toward purchased turf three years ago and put in a trial acreage. He liked the results, and made the changeover from growing potatoes to turf on the home farm. Last year he had 200 acres in turf, and this year he will increase his turf acreage "substantially."

He is well pleased with the acceptance of Tuckahoe Turf, and gives a lot of credit to the Turf Experimental Station at the University of Rhode Island.

Growing turf requires the proper stone-free soil, plus a big investment. Turf costs twice as much per acre to raise as potatoes. Soil is tested before each seeding. Turf land is plowed, harrowed and worked over with a big land leveler, an expensive item.

Fertilizer used depends on soil tests. Lime and fertilizer alone averages between \$75 to \$100 per acre, plus another \$200 per acre for seed. Win buys top-quality Merion Blue seed, as well as a mixture. Grass can be seeded almost any time water

Win Tucker grows turf on the home-farm, irrigated by the rig in background.

is available to get it established. He seeds about an acre an hour with a tractor-drawn Brillion seeder.

Heavy rains can wash out new seedings, sometimes requiring re-seeding three or four times. One New Jersey man had 500 acres of newly-seeded sod washed away. Tucker attempts to avoid losses by establishing waterways through valleys, and by applying other soil conservation practices to prevent washing before sod is established.

Sod is sprayed to control disease and insects . . . and is mowed frequently.

Depending on conditions, Win likes to apply an inch of water to sod each week, irrigating once or twice a week. Although potatoes may not need irrigation every year, he feels irrigation is very important when growing turf. He considers irrigation an insurance policy because four out of five years irrigation can be used to advantage.

Wheel System

As turf is grown on the home farm, irrigation pumps are powered by a permanently-installed electrical system. He uses three wheel-roll rigs having seven-foot-high wheels. Each section carries 1250 feet of five-inch aluminum pipe, and covers an area 1250×60 feet per setting.

Moving a quarter-mile section is easy. When water is shut off, pipe automatically drains when pressure drops below 10 pounds. Head and laterals are disconnected and a two-horsepower lawnmower-type gasoline mower (with which each system comes equipped) is put in gear and the entire line moves forward to the next location. Tucker reports that the wheel-roll system will climb a five-percent grade, and short sections will even climb a 15-percent grade. However, land must be nearly level or joints may sag and break.

When the unit has moved to its next location, heads and laterals are attached and the irrigation system is again in business. Motors are removed in winter, and the wheel-roll system is staked to prevent wind movement.

A three-phase electric system is used to power four sizable motors. A 75-hp motor pumps water from a stream a mile away. A 60-hp motor pumps water from the reservoir pond next to the potato warehouse and office. Two gravel-packed wells . . . one with a 20-hp, and the other a 30-hp motor . . . act as boosters.

The smaller motor refills the pond, while the 30-hp one boosts line pressure lost due to friction in irrigation lines. All pumps can be hooked into any line to boost pressure. As turf acreage is increased, more wells will be added.

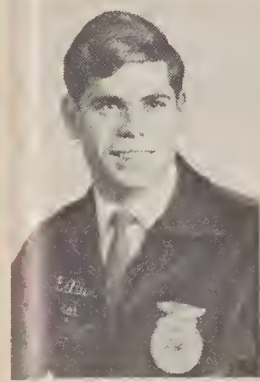
Tuckahoe Turf is sold to landscapers within a hundred-mile radius for landscaping around industrial buildings, apartment houses and shopping centers. Instant lawns quickly complete the landscape contract, and avoid dust-blowing problems.

Contrary to popular opinion, Tucker claims that thin sod is better

(Continued on next page)

FFA OFFICER

Leadership for 1970-71 in the National FFA includes an Empire Stater . . . George E. Allen, 20-year-old son of Mr. and Mrs. Norman W.



George Allen

Allen of Easton. As vice president of the North Atlantic Region of FFA, he is serving a year's term.

In this capacity, young Allen was able to participate with fellow-officers in the annual multi-

state Tour of National FFA Officers . . . an opportunity to bring about a better understanding of FFA by meeting and exchanging ideas with leaders of government, business, industry and national organizations interested in agriculture.

In 1970, more than 450 of these various groups and individuals contributed financially to the FFA Foundation, Inc., thus making possible the annual incentive awards program to honor the agriculturists of the future.

As an integral part of the high school vocational agriculture instruction, the FFA provides programs which help develop knowledge and skills essential to success in farming and agri-business. This year more than 430,000 young people in 8,176 FFA chapters will participate in programs of leadership, cooperation and citizenship which will prepare them for jobs in agriculture and help them become leaders in their community.

A newly born fawn depends on his camouflage and lack of scent to prevent detection. By five weeks of age he has another defense . . . speed . . . and can outrun a man.

Turf

(Continued from page 6)

than thick. "Good thin sod, not over an inch thick, roots quickly in the new location, usually within a week," he says. "Sod cut more than two inches thick may not root for several months. The thinner the sod, the better the quality . . . otherwise it won't hold together. Thin half-inch sod has got to be good or else it will fall apart. Cutting the roots actually makes it grow faster."

Sod is a one-to-two-year crop, averaging eighteen months. Grass replenishes the soil, and sod with a heavy root system removes not over a half-inch of topsoil.

A mechanical cutter cuts sod into strips measuring 2x4 feet, or 1½x4 feet. When hit by the cutter, a stone as small as a cranberry will punch a hole in the sod. Sod is packed flat, and five feet high, on 4'x4' pallets . . . up to 10,000 square feet per load on boom-equipped flatbed trucks.

When water is available to establish grass, sod may be cut and laid anytime the ground isn't frozen. However, in Tucker's sales area spring and fall are the best seasons . . . fall first and spring next. As soon as sod is removed, the land is prepared for the next seeding of grass.

American Agriculturist, April, 1971

From Britain's famous Nuffield designers comes a mighty new breed of tractor...

LEYLAND FOR THE 70'S



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Three styled-for-today models: the rugged Leyland Nuffield 384 with 230 cu. in. displacement, the 344 with 208 cu. inches, the versatile 154 with 99 cu. in. power plant. They're made and backed by the same international corporation—British Leyland Motors

—that has made Jaguar, MG, Austin, Triumph, Rover and Land Rover respected names around the world. Write your Leyland distributor for complete details, and make your tractor money work harder for you. A whole lot harder.

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COXSACKIE Carleton Wilkinson
DEANSBORO Sturdevant Sales & Service
EDEN Eden Nurseries, Inc.
FRANKLIN Raymond Tilley
FREEDOM Bob McKerrow & Son
GOSHEN Gor-dum's

LIBERTY Denman Equipment
LISBON George & Betty Kentner
LITTLE FALLS Kellehers Garage
LYNDONVILLE Plummer Sales & Service
MONTGOMERY Chambers Ford Tractor
NEWFIELD Rudolph Mazourek
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BARTON Carl's Equipment
FERRISBURG Richard Hawkins Garage
RANDOLPH Websters Farm Machinery
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BANGOR Rollnick Equipment Co.
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NEW HAMPSHIRE
E. ROCHESTER Geron's Garage
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CONNECTICUT
WAREHOUSE POINT Walker Ford Tractor
WOODBURY Judson Farm Equipment

RHODE ISLAND
TIVERTON Antone A. Medeiros

NEW JERSEY
MAHWAH Farmers Auto & Equipment Exch.

What's NEW in the FIELD

by Bill Pardee*

SEED TREATMENT '71

THE whole topic of seed treatment seems badly scrambled this spring. Greatest changes are in New York, where recent legislation dras-

*New York State College of Agriculture,
Cornell University

tically restricts chemicals that can be used for seed treatment. Most other states remain as last year, for this spring at least.

Here's a rundown on what's available as we see it at this writing. We'll cross our fingers and hope it's

still true when you read this article!

First, let's look at seed treatments in general, and what's been happening. Big spring uses have normally been on oats and corn. On oats, it's been fungicides to control smuts and to protect against soil-borne diseases. On corn, it's been fungicides to fend off seed rots and soil diseases, and insecticides to protect against the seed corn maggot, a real stand-thinner if you've got it bad.

Biggest changes this year involve mercury, the active ingredient in past fungicide treatments . . . and dieldrin, a common corn-seed insecticide. Federal regulations have banned mercury from interstate shipment. In most states, dealers can use up present stocks, so most oats will be treated this spring. The

rule is tighter in New York, where no treatment with mercury has been permitted after December 31 of 1970.

Mercury-treated seed is legal to sell, though, and certainly okay to plant. But only for this year! Mercury-treated seed will be outlawed **completely** in New York after December 31, 1971.

Treated

Still, most seed companies treated their oats before the December 31 deadline. So treated seed is available and it's a good bet for planting. Don't worry about the mercury scare as far as planting is concerned. This has been badly overrated in seed . . . **so long as you don't feed treated seed to livestock or poultry.**

Calculations indicate more mercury falls on your field from dust and rainfall during the year than you'll put on in the seed. But sensational publicity has done its job, and mercury is on its way out in seed treatment.

Dieldrin faces about the same fate in New York. The chemical can't legally be brought in across State lines, but present stocks can be used up and seed legally treated.

Oats

Talking to seedsmen, we find that most seed oats will come treated. You'll miss out only if you buy your seed late, after treated seed is sold out.

Maneb-base fungicides are cleared for non-food use at the federal level and could be used. Well-known compounds in this group are Granox N-M, Manzate D and Dithane M-22.

Other possibilities include formalin, an old-time method using formaldehyde dripped on the seed and mixed in with a shovel. This gives a fumigation action, but it's not a pleasant task.

Corn

Check your corn seed closely, because you can treat this in your planter box, if it's not treated.

Check for the fungicide first. Most seed will come treated with either captan or a thiram-based chemical like Arasan. Both give good control of seed rots. But several companies kept all chemicals off their seed last fall, fearing further legal restrictions.

If your seed has no fungicide on it, you'll find captan readily available. Thiram-base compounds are also obtainable if you press your dealer. Both can be purchased in powder form and added in the planter box.

Check also for an insecticide. Most companies have used dieldrin, or related chlorinated hydrocarbons. These are now restricted in New York, but legal in most other states. Much seed sold even in New York will come treated and is okay to use this year, but this is probably the last.

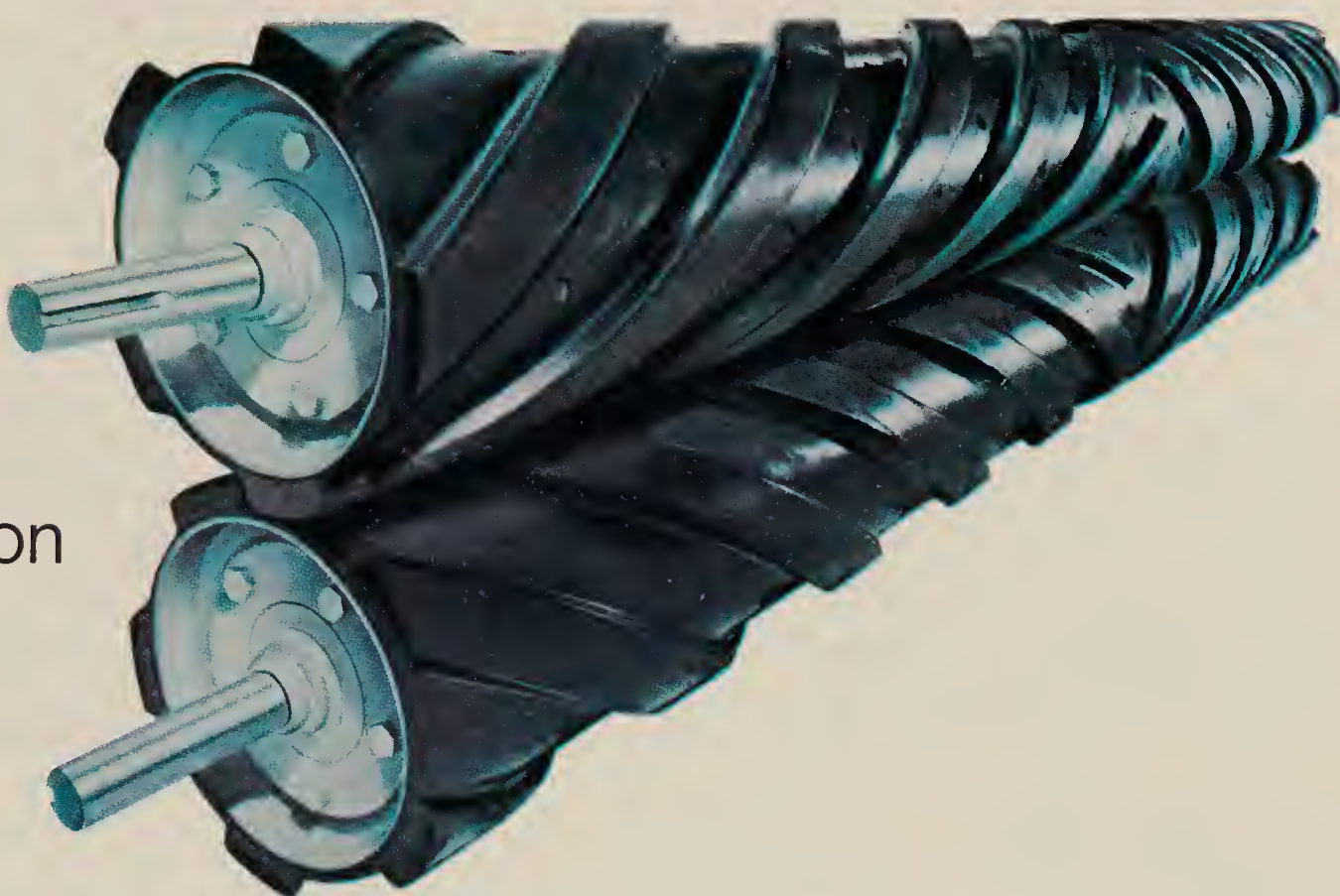
No Loss

Actually, dieldrin may be no great loss to many farmers. It served mainly to protect against the seed corn maggot, and this pest has become resistant to dieldrin in many areas. Even without legal restrictions on dieldrin, we'd be looking for another chemical.

(Continued on next page)

How to make hay without getting all wrapped up in it.

The answer:
Intermeshing
rubber rolls
that grip hay
firmly, condition
it thoroughly.
Only on
New Holland!



If it weren't for these rolls, a Haybine® mower-conditioner would wrap and plug like other mower-conditioners. What makes these rolls so much better? First of all, both are rubber, so you don't have the sticking problem you have when one roll is made of steel.

Then notice the exclusive chevron design of the treads. These treads intermesh as they spin, which gives the rolls a good, firm grip on the crop (to keep it moving) and lets them do a thorough conditioning job (for faster drying).

One more thing. These are *high-speed* rolls, which is another big factor in turning out the kind of fluffy, airy windrows that cure quickly.

And these unique rolls are "packaged" in a rock-solid unit that's built to outlast any other mower-conditioner in the field. That's why more

farmers buy a Haybine than any other mower-conditioner.

There are three models: a self-propelled and a pull-type that are 9'3" wide, and a smaller pull-type with a 7'3" cutting width.

Smart farmers will be seeing their New Holland dealer before they get all wrapped up in this year's hay!

New Holland Division of Sperry Rand Corporation.



Remember,
if it isn't New Holland,
it isn't a Haybine.



SPERRY RAND

NEW HOLLAND

Practical in design • dependable in action

For the newest information on this topic, I've checked with Dr. Art Muka, Cornell entomologist. Art tells me that your best bet this year is a planter-box treatment with Diazinon. Use this if your seed comes without an insecticide . . . or if it's treated with dieldrin and dieldrin no longer works in your area!

Diazinon is readily available at most farm stores. One form on the market is mixed with graphite, to improve plantability. The graphite lubricates both the seed and the planter plate, and so keeps things flowing smoothly.

For seed that's completely untreated, there's another interesting mix of captan, Diazinon and graphite. This gives you everything you need, all in one package, and you can mix it in all at once.

Just one caution. When mixing chemicals into your seed in the planter box, do your mixing with a stick, not your hands. These chemicals aren't as rough as some, but they're still poisons!

Look Ahead

The future of seed-treatment chemicals is up in the air. Some chemicals, like captan and thiram-type compounds, are safe and probably never will be questioned. Maneb-type compounds also appear safe.

But the public mood at the present time is to cancel first, then question afterward. This may knock many useful chemicals out of our bag of alternatives. This may eventually mean higher food prices for the consumer. But right now, the pressure is on and pesticides are frightening the public.

We certainly don't favor using chemicals in ways risky to the operator or to consumers. But gasoline, electricity and fire are all dangerous playthings when used carelessly. Pesticides actually have an amazing track record for safety.

Yet the occasional misuse gets national press. So no matter where you are using a pesticide . . . in the field, in the barn, or in the house . . . follow directions and use it with caution. Protect yourself, your family, and the consumers who end up with your produce. Don't you be the one to cause someone harm . . . or to give agriculture a bad name.

One thing further. The above information can change between the time I write and the day you read this. Ground rules change from state to state . . . so for specific questions check with your local chemical dealers, or with your County Extension Service. They'll be able to bring you the newest information for your state or region.



Work Easer — A concrete bumper along the edge of the feeding floor makes it possible to clean the lot or floor quicker, get a fuller load on the scoop, smooth up the job. This one has a tile drain to carry off surplus liquid that flows down from the slope.

The Song of the Lazy Farmer

I do not know a single thing that beats arrival of the spring; when robins sing and frost is gone, I like to pop right out at dawn and tramp

around the place a mite to work me up an appetite. There's nothing like the fresh spring air to blow away 'most ev'ry care; the smell of muddy earth is great, this time of year I cannot hate a single thing about my life, not even when my dear old wife starts shouting at me from the door to go and do some nasty chore; I almost feel like doing it, that's how much spring can dull my wit.

The reason that this time of year is filled with happiness and cheer is that there's no more fires to build in early morn when I am chilled. I do not have to shovel snow from driveways so my wife can go ske-daddling off to club or town; and I can always lay me down 'most anywhere to rest my form without a blanket to keep warm. Of course, spring has its drawbacks, too; there's always lots more work to do. But when Mirandy starts to look for me, I'll be down by the brook to see how fishing's apt to be when summer really comes, by gee.



CYGON* 2-E



the "Linger Longer" Fly Spray

Cygon* residual fly spray stays on the job when other fly sprays are long gone . . . gives flies a "hotfoot" they never forget.

Costs only pennies a day. Used in a gallon of water as a 1% spray, Cygon covers 500 to 1000 square feet, depending on the surface sprayed.

Approved for use in dairy barns, and in buildings housing beef, swine, sheep, horses, poultry.

So get after flies before they get after you—get Cygon 2-E! In pint, quart, gallon bottles and five-gallon pails.

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FROM CALF TO CALVING

by William Quinn*

SHYLOCK, that avaricious old money lender in Shakespeare's "Merchant of Venice," lives on in infamy because he demanded a pound of flesh as a return for his money. Yet nowadays many men are beating Shylock at his own game! They're heifer growers, and they expect to get back a pound and a half of flesh every single day they invest in a heifer.

As a matter of fact, if they're going to turn a Holstein calf weighing 100 pounds into a 1200-pound two-year-old, they have no choice . . . because that's an increase of 1100 pounds in body weight in only 730 days. To make it, a heifer must average 1.5 pounds of daily gain. Of course, heifers don't gain at a uniform rate throughout the period. The highest daily gains are usually between two and ten months, with the peak rate coming between four and six months.

Expect Growth

Considering the kind of investment they make each time they raise a heifer, dairymen have a right to expect good growth in return. Economists have calculated that it costs somewhere around 25 to 30 cents for each pound the heifer gains . . . giving a value to labor, but not counting the cost of the calf. Some quick arithmetic and it's easy to conclude that two-year-old heifers, as they enter the milking string, have cost their owners somewhere near \$300, plus the value of the calf.

Like the proverbial cat that can be skinned in so many ways, there are many different feeding and management systems used to turn a two-months-old calf into a cow. The one a dairyman chooses depends on his own par-

ticular situation . . . the size of his herd, the labor he has, the kind and amount of his feed supply, and the buildings available.

But whatever system is used, successful dairymen agree that it doesn't cost any more to grow heifers well than to do it poorly. A well-grown heifer gets into production earlier and reduces the labor and board bill (it's just like putting the kids to work).

Some Examples

A quick look at the heifer-rearing programs used by New York dairymen with whom I have visited emphasizes the diversity of their approach to the job:

In addition to replacement stock for his own 80-cow herd, George Demeree of Little Falls likes to have some extra heifers to sell each year. His heifer calves stay in their individual slatted-floor tie stalls 'till three months of age, then move to an old barn converted to tie stalls especially for heifers.

Here they are fed good-quality second-cutting hay and about four pounds of calf-grower grain ration per day. At four months, the calf-grower is replaced by a heifer-growing ration. The animals are grown out in their sequentially-sized stalls, but get turned outdoors occasionally for exercise.

In summer, animals over nine months of age go on pasture. About two pounds of grain per head per day, plus first-cutting hay, is fed until the animals reach their first birthday. George tried an LPS (Liquid Protein Supplement) feeder in the pasture. "The hay was poor quality," he said, "and I think the LPS made a big difference."

George is shooting for big,

deep-bodied heifers that have the frame and growthiness to consume lots of roughage. He likes to have as many as possible freshen in July.

The Demeree herd, despite a major expansion in cow numbers . . . and the reduced culling rate which accompanies it . . . averages 15,000 pounds of milk and 554 of fat and is still climbing.

Heifer Raiser

A heifer raiser for hire . . . that's Pete Stephens of Genoa. A former member of the Cornell University dairy cattle judging team, Pete purchased this farm in the heart of Cayuga County's rich corn belt with the expressed intent of raising heifers on contract. A 50' x 180' free-stall addition to the existing 40' x 120' barn gave him housing capacity for 375 heifers.

Heifers are accepted at about four months of age on a one-year contract, automatically renewable, but subject to termination by either party on six-weeks notice. The monthly charge is \$15. Animals are turned back to the owner the month they're due to calve.

The animals are sorted by size and condition into eight groups. Pete's free stalls come in five sizes . . . 2½ x 3½ feet, 2½ x 4½, 3 x 6, 3 x 6½, and 3½ x 6½. If he had it to do over, he'd build more of the 2½ x 4½, fewer of the smaller size. "They outgrow 'em too fast," says Pete.

A fenceline bunk filled by unloader wagon runs the full length of the eastern (and open) side of the barn, with the free stalls running across the barn. Silage is stored in a 40' x 180' x 12' trench silo.

The feeding program is based on corn silage. Chore time is about two hours. At four months

of age, heifers entering the system receive some corn silage and alfalfa hay (plus two pounds per day of 20-percent-protein grain). As they get older, the corn silage is gradually increased, until at about 8 to 10 months they are eating only corn silage as roughage, plus two pounds of 33-percent-protein supplement per day. A mineral mix (Fortamin), approximately 26 percent calcium and 13 percent phosphorus, is fed free choice.

Animals are bred by natural service to a son of an AI-proved sire. Pete reports most of the owners like to have them bred to calve at an age of 24 to 26 months.

Health problems have been almost nil. Pete has had some ringworm, but finds it clears up within two weeks after the animals receive a shot of vitamins A, D and E. In the four years since he has been there, he's lost just four animals. If they have not been previously vaccinated, the animals receive shots for Lepto, IBR and shipping fever on arrival. All are individually identified with plastic Roto tags.

The Cregos

Allen and George Crego farm 350 acres bordering on both sides of East Sorrell Hill Road in northwestern Onondaga County. Sorrell Hill . . . the name itself conjures up visions of acid hilltop land, of depleted soils and abandoned, rundown farmsteads!

Nothing could be further from the truth, however, for the Crego Farm is among the most attractive and productive in upstate New York. The present inventory lists about 200 head of Holsteins, distributed roughly 50-50 among milkers and young stock.

The Cregos have been farm testing some new ideas in heifer rearing, and with considerable success. Calves are started in individual slatted-floor tie stalls, then moved to a recently-re-modeled heifer wing with concrete floored free stalls that are bedded with chopped straw. A tapered 2" x 2" is nailed to the back edge of the stall to help hold the bedding in place.

Two Groups

Here the heifers are split into two groups . . . the youngest in stalls 2½ feet wide and 3 feet long, the older in stalls 32 inches x 3½ feet. The stalls are built of Timbertox-treated white ash and face each other, but are separated by a center feed alley. Unlike most free-stall operators, the Cregos feed their heifers in the free stalls. (Head openings are about 8 and 10 inches respectively.) The animals stay in this heifer area 'till they are yearlings.

From that time until freshening, the Crego heifers are housed in another free-stall barn and are self-fed corn silage from a bunker silo. Their diet also includes hay fed in the free stalls. This barn is an old tobacco shed, originally 24' x 64', later expanded to twice its length. A roofed wooden bunker (an extension of the barn

(Continued on next page)

*Cooperative Extension Agent, Onondaga County, New York.

roof) adjoins the barn along its entire length.

Here too the animals are sized into two groups. The smaller animals feed from one end of the bunker, the larger from the opposite end.

Stalls for the larger animals are 4'x5', for the smaller, 3'x4'. The stalls are built of wood, filled with a sand base, and bedded with a little straw and any uneaten hay. The alley is scraped about twice a week in winter, sometimes only once a week in the summer.

Feeding

How about feeding in free stalls? "It's a matter of sizing," reports Allen. "Our stalls aren't too much different than a stanchion or tie stall. We've been feeding hay in them for some time and I think have made out well."

How about self-feeding from a bunker? "The bunker works fine. It has a roof over it, there's no snow and the wind doesn't get under the plastic. There's very little spoilage. We control intake with our feeding gate. We make them clean up their silage as they go along."

Starting 100 heifers a year is not a job for amateurs. Fortunately, the heifer program at Grenholm Farms near Blossvale in Oneida County is under the experienced direction of Cliff Collins. The heifers start in free stalls early and remain in them 'till milking age. Following weaning, the calves eat hay and growing ration until about four months of age, then the grain fed is switched to the regular dairy ration.

Another Barn

In addition to the calf area in the main dairy barn, the Collinses employ what they call an "intermediate" barn. Here heifers remain 'till they're about five to six months of age. After six months, the heifers are shifted to the main heifer barn.

Cliff likes to use plenty of corn silage, starting about this time. He estimates that the heifers receive about 3/4 of their forage as corn silage. Every morning they're fed all they'll clean up during the day. At night they receive some hay. About 1 1/4 pound of 33-percent-protein pelleted Topper is fed in a head-gate manger.

Two stall sizes are used . . . 32"x6' for animals up to 10 months of age, and 36"x6' for the older animals. Heifers are grouped about 25 animals in each group.

Pasture is used for older animals but they are also fed some silage and grain in a bunk near the barn. Age determines whether a heifer goes on pasture . . . nine months is the minimum.

The Collinses like to have most of their heifers freshen in the fall, so in October a young sire is put in with the oldest heifers. In December, another group of unbred heifers is added. No heifers are added to the breeding group after February 1. In the

spring, their vet is asked to run pregnancy checks on any animals that show no udder promise.

Vaccination

The Collinses are vaccinating for brucellosis, but haven't yet vaccinated for IBR or BVD. Every fall they worm all heifers over six months of age. Bred heifers (and cows) freshening during warm weather are vaccinated for Lepto.

The Collins program results in animals coming into the milking string at 1200 to 1300 pounds in weight. Some dairymen wonder if heavy corn silage feeding will turn out heifers with meaty udders. No problem here, reports Cliff.

How about raising calves in free stalls, then shifting them to a stanchion barn? "It may take a little extra help when you first bring them in, but they adjust quickly," says Cliff.

Like many dairymen, Otis Young, Jr. of East Homer starts his calves in individual 2'x4' slatted-floor stalls. Their next move is to tie stalls 30 inches wide. These, says Otis, are wide enough to hold animals up to 10 months of age. By this time, they're old enough to move onto pasture . . . but always with hay and grain available. Pastured heifers get 2 to 2 1/2 pounds of grain a day.

In the fall, they move into a free-stall barn that Otis recently

constructed for his heifers. He had previously tried a bedded pack, but decided that too much of the time it was too much of a mess, so he built the free stalls and is happy with them. He tried self-feeding out of a bunker, but got two heifers caught in the feeding rack, and now uses a hydraulic loader instead. He feeds about 40 heifers from a nearby bunker in a few minutes. He suggests that self feeders might be welded out of pipe, and adds, "Maybe this would avoid the problem I ran into."

Heifers are divided by size as they approach breeding age, the larger ones running with a bull. "It was harder to catch the heif-

(Continued on page 12)

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Calving

(Continued from page 11)

ers in heat when they were in stanchions than it is now. I had to carry some over and that costs money," says Otis. His goal is calving at 24 months of age.

When visiting with dairymen like these, it's not long before four main "musts" in rearing heifers from two months to two years become apparent:

1. Group the animals by size and kind of feed needed.
2. Get enough feed energy into them to keep them growing well, but not too fat.
3. Get them bred.
4. Grow them efficiently, especially in terms of labor.

Grouping

After leaving their individual stalls, calves should be grouped . . . because of their differences in size and feed requirements. It's better to sort them by size rather than by age since large animals can crowd small ones away from the feeding area. Similar-sized heifers avoid undue competition. Grouping also makes group treatments easier . . . vaccinations, for example.

The younger the animals, the smaller the spread of the group should be. From three months to eight months perhaps three different groups, roughly 3 to 4 months in age, 5 to 6 months and 7 and 8 months, might be suggested.

From eight months to freshening, fewer groups are needed. For many herds, only two groups will do, suggests Dr. Sam Slack of Cornell. One group might contain heifers from 8 to 15 months, the second group animals from 15 months to freshening, as well as dry cows.

Feeding

Besides the competitive factor, feed requirements also warrant the grouping of different-sized heifers. Until a heifer is about four months of age, she should be allowed all the grain she will consume in addition to free-choice hay. From 4 to 6 months, corn and/or hay-crop silage can be introduced . . . with grain continued at about 5 pounds per head per day.

From 6 to 8 months, silage can be increased and grain gradually reduced. With top quality hay, grain can be completely eliminated after 8 or 9 months. If the hay is of only average quality, the grain may have to be continued the full year. Hay, water, and minerals should be available free choice in all cases.

From eight months on, the kind and quality of the forage determines whether and how much energy or protein supplement are needed. Because of this, the grain needed to raise a heifer to calving age may vary all the way from 400 or 500 pounds to 3 or 4 times that amount . . . just because of differences in forage quality. Corn silage, which is a high-energy but low-protein forage, will require some protein supplementation. Corn

silage may have to be limited with bred heifers if they begin to show over-conditioning.

Pasture is still an important source of feed for many heifers. Heifer calves can go on pasture as early as four months, but the pasture shouldn't be expected to supply their nutritional needs. Hay and grain, as well as shade and fly protection, should be provided.

The name of the game in heifer feeding is to keep them growing, but not fat. Many dairymen are familiar with the Cornell experiment involving several sets of triplet heifer calves. One of each set was fed at high, medium, and low nutritional levels.

The high level group, given much more feed than required, resulted in overfat heifers, with less secretory tissue in their udders (more fat infiltration of the mammary gland). This group produced the least milk during its lifetime. The heifers fed at a low nutritional level exhibited slow growth, delayed first heat and more calving trouble. The middle group, those fed to keep them growing . . . but not over-conditioned . . . were the most profitable.

Housing

Heifer housing facilities need not be fancy. But they should be designed to permit grouping, to provide dry and draft-free quarters, to keep animals out of the mud, and to save labor. Stanchions or tie stalls can be used, but the feed must be carried to the heifers and manure removed.

Community pens are fine for smaller heifers, but older animals require excessive bedding and are usually dirty. Loose housing in a cold building or shed works well, but here again bedding requirements are high. When used, it's best to separate the feeding area from the bedded pack. A concreted feeding apron that can be scraped will cut bedding needs considerably.

Free stalls for heifers work well and are rapidly gaining in favor. Heifers take to them readily; significant savings in bedding material result, and . . . in properly-sized stalls . . . the heifers will be very clean. Alleys must be scraped once or twice a week. Penn State Plan #723-202 provides information about constructing free-stall heifer housing for animals of varying size. The design permits easy straight-line manure removal with no obstructions . . . and shows details of a fenceline-feeding arrangement.

Old buildings work fine, but only if they can be arranged to minimize labor. However, the use of outmoded heifer facilities that have high labor requirements may, instead of delivering anticipated savings, actually result in higher costs.

Breeding

When should a heifer be bred? Sounds simple enough . . . about nine months before you want her to freshen! Unfortunately, though, it's not quite that simple!

It's fairly well established that

heifers calving when they're around 24 months of age produce the most milk in their lifetime. But size, rather than age, should be the true criterion for breeding.

Holstein heifers around 750 to 800 pounds (with a heart girth about 64 to 66 inches), between 13 and 15 months of age, should be ready to breed. Breeding much earlier than that results in excessive calving troubles. Underfeeding, too, will increase calving difficulty . . . resulting in calves only slightly smaller than normal.

For the dairyman who has and wants to keep a fall-freshening herd, calving heifers at 24 months is a must. A 26-to-30 month heifer throws the cycle off.

While fall fresheners still pick off the best milk prices, some dairymen have separate dry-cow facilities and like to keep their dairy barn filled with milking cows. For them, the best program may be one that freshens a uniform number of animals monthly throughout the year. This system also permits the most efficient use of young stock facilities.

Under either system, the "target" should be 24 months, but some early calves might be held back a couple of months . . . either for seasonal milk prices, or to await a place in the milking barn. Conversely, a late group of calves might occasionally be pushed for earlier freshening. Earlier breeding might also be employed on well-fed heifers.

Some dairymen breed their heifers to a beef bull to produce smaller calves and reduce calving problems. Perhaps a better approach is to check with the bull stud and select those AI sires that produce smaller calves.

Another question . . . whether to turn out a young bull with the heifers . . . is not as easy to answer. The extra production from breeding heifers to an AI sire must be measured against the greater convenience of natural service. We recommend trying at least once artificially, then using a young bull sired by an AI-proved sire out of a top-drawer dam.

Pre-calving Care

Good heifer growers are good "watchmen." They're constantly on the alert, checking condition of their animals. They note the "poor-doers" . . . pulling them out for some individual attention. They check for heat and pregnancy. They're quick to note any disease conditions.

In the period before calving, they're especially watchful. At this time, they must evaluate the condition of the heifers and decide on future feeding; if thin, a little more grain, if fat, continuing on roughage. About 2 to 3 weeks before the due date, it's best to switch the heifer over to the herd's usual roughage-feeding program, acclimating her to herd conditions. At this time she should also join the herd . . . and find her position in the "pecking" order . . . the social hierarchy of the bovine world.

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FORESTRY



NYFOA — Edmund Moot, a director of the New York Forest Owners Association, reports that the annual Maple Festival will be held in Schoharie County on April 24 on the Village Green at Jefferson, New York. The organization is encouraging the musically-inclined to create a county-music tune that will represent the maple industry. Lyrics should be sent to Mr. Henry Maag, editor of the Forest Owner, Box 98, Castleton-on-Hudson, New York 12033 . . . who

is also the organization's membership secretary.

The annual meeting of NYFOA members will be held April 17 and 18 at Binghamton. A recent development that will create a lot of conversation at this get-together is the formation of a logger group to establish a code of ethics for timber buyers.

Forest Herbicide — Five years of experiments with pelleted fenuron herbicide at Penn State's School of Forest Resources show that the material kills stands of "weed" trees while permitting desirable seedling trees to grow rapidly. The findings showed no harmful effects on non-target organisms such as insects, wildlife, and man. Only insignificant

residues of the herbicide remained in the soil within five months after application.

Over the five-year period, fenuron killed undesirable trees, but enabled two-year-old Japanese larch seedlings to grow lush green and 8 to 10 feet tall. Larch planted in non-treated areas were only 18 inches tall in 5 years. Japanese larch was chosen for its "deer-proof" growth and high yields of wood per acre, acceptable pulpwood, and suitability for genetic improvement.

Puckerwhat? — Not everyone is acquainted with the term "puckerbrush." However, the School of Forestry Resources at the University of Maine has been carrying out research on the feasibility of using

puckerbrush to make pulp for paper.

At least six species . . . gray birch, aspen, red maple, pin cherry, alder, and willow . . . are included by Maine researchers under the term. They estimate that 10 percent of the Pine Tree State is covered with puckerbrush species.

Webster, by the way, defines the word in his dictionary as "wax myrtle" . . . whatever that is. If you think this all seems somewhat confusing, you're right!

Timber Agent — A pilot program to provide the services of a timber agent to woodland owners in a five-county area of New York State will be continued for another year. Expansion to other areas of the State is expected if the program is successful.

The timber agent system, under the auspices of the NYS Forest Practices Board, was initiated on a trial basis to assist landowners in all phases of timber marketing and logging operations. Counties involved are Broome, Chenango, Delaware, Otsego and Schoharie.

During the first six months of the program, timber agent Harold C. Nygren of Bainbridge assisted seven owners with timber sales totaling 860,000 board feet and bringing \$21,730 to the owners. Additional sales are being prepared.

Stream Map — Take along a copy of the Stream Map of Pennsylvania on your next hunting trip to the Keystone State. Included are the names and locations of major mountains, valleys, lakes, dams, swamps and reservoirs. It shows 3000 each of streams, towns, and elevations above sea level, and indicates the location of forest fire control towers operated by the state.

The 3×4-foot map is available in two styles, flat or folded, for \$1.06 (tax included) from: Stream Map, Box 6000, University Park, Pennsylvania 16802.

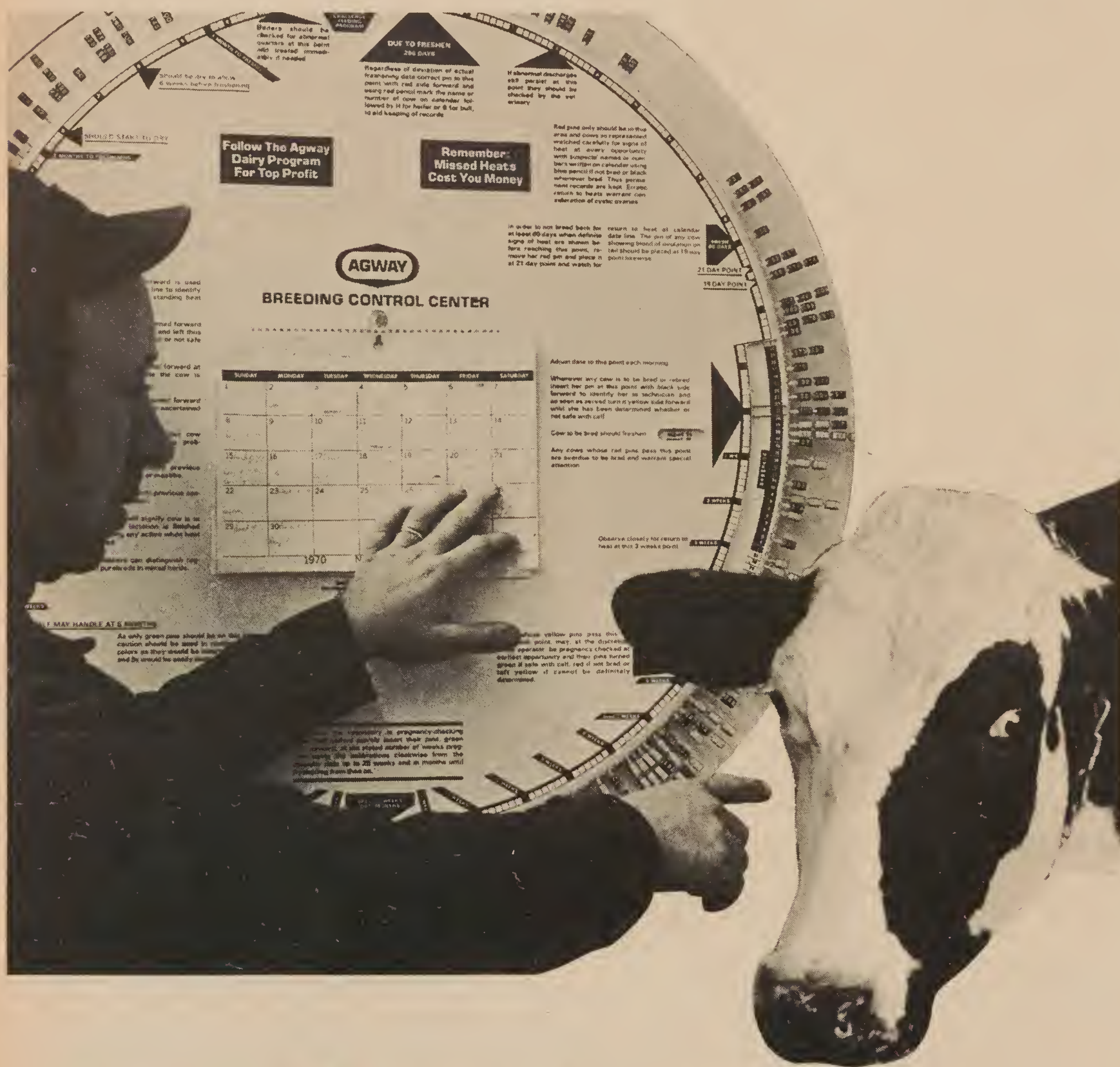
Maple Research — Sugar bushes that have had vacuum pumping for over 10 years have shown no decrease in vigor, and there's little difference in quality of sap and syrup from that produced by the gravity system. So say University of Vermont researchers.

Properly-installed plastic tubing will provide twice as much sap as maple buckets; the addition of a vacuum pump improves production by at least 50 percent. Plastic tubing hung incorrectly can result in back pressure or reabsorption, the specialists warn.

This happens when sap must move uphill against gravity to get from one taphole to the next. The sap can flow back into the tree when a cooling period occurs and outside pressure is greater than pressures inside the tree. To prevent this, the use of a level is recommended when hanging tubing.

The most efficient vacuum system uses two pumps. One pulls the sap into the tank; the other takes it from there into a separate storage tank.

(Continued on next page)



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The combination avoids the loss of vacuum and heating of sap which occurs in other systems.

Gypsy Moving — The gypsy moth has moved down out of the mountain areas in New Jersey and will be checking the bill of fare in the back yards of many thousands of residents this spring.

The New Jersey Department of Agriculture warns that egg mass counts show the hungry, leaf-eating pest is not only increasing in numbers, but also spreading into a wider area. Approximately 200,000 acres are expected to be defoliated this spring.

Clearcutting — Forest Service scientists at the Fernow Experimental Forest on the Monongahela National Forest in West Virginia are advancing further proof that clearcutting . . . if it's well planned and well managed according to national forest management practices . . . does **not**

cause flooding or soil erosion. Properly located, clearcutting can bring about a more dependable streamflow.

The foresters report that much depends on the location and management of logging roads. Regardless of the amount of timber cut, a good road system will hold erosion and sedimentation to low, acceptable levels.

Protests — Wesley Wells of RD 2, Moravia, New York has written AA . . . protesting New York State's syrup grading laws. He reports that there are three official State grades . . . AA, A, and B . . . but these designations are **optional**.

Furthermore, he reports that the NYS Maple Producers Association

recommends that its members stamp one of these grades on syrup: Light Amber Table Grade, Medium Amber Table Grade, or Dark Amber Table Grade. These correspond, in order, to the previously-mentioned official grades. Mr. Wells believes that labeling everything as "Table Grade" . . . although legal under State laws . . . is confusing to retail purchasers of maple syrup, and detrimental to the long-run best interests of the industry.

Any comments, maple producers?

Tree Pills — Paraformaldehyde pills are commonly used in tapholes of sugar maple trees to increase sap yield by checking the growth of microorganisms that cause premature decline and

stoppage of the sap flow.

Researchers have found, however, that the paraformaldehyde kills the tissues that surround the taphole, thus blocking nature's system for prompt healing of the taphole wound. Wood-inhabiting microorganisms . . . on which paraformaldehyde has no effect . . . soon invade the killed tissue and decay sets in.

The long-range effect of paraformaldehyde on wood surrounding tapholes is now under study. A full report of research to date appears in USDA Forest Research Paper NE-161. To get a copy, write to: Information Services, Northeast Forest Experiment Station, Upper Darby, Pennsylvania 19082.

PLYWOOD GUIDE

An updated brochure, "Exterior Plywood in Farm Construction," is available from the American Plywood Association.

The 24-page publication has helpful notes, charts and illustrations identifying plywood grades and support spacings recommended in the construction of swine and poultry houses, dairy barns and grain storage buildings.

It also contains an index of farm construction plans available free from the association on individual request.

Single free copies can be obtained by writing to: Dept. AA, American Plywood Association, 1119 A Street, Tacoma, Washington 98401. Ask for form 63-390.



FINK COAT, ANYONE?

What do you get when you cross a mink with a ferret? Well, it could be either a fink or a merret, depending on how the whole thing works out.

Anyway, scientists at Michigan State University are going to give the idea a try. Why? Because mink, in spite of all that beautiful fur, are temperamental . . . even vicious . . . and therefore, expensive to raise. The ferret, although closely related to the mink, wears a cheap, homely coat that varies from yellow to black, but is calm and easy-going.

Ideally, the scientists will get an offspring with the disposition of a ferret and the fur quality of a mink. If it works, they'll call it a merret. If it doesn't, they'll call it a fink.

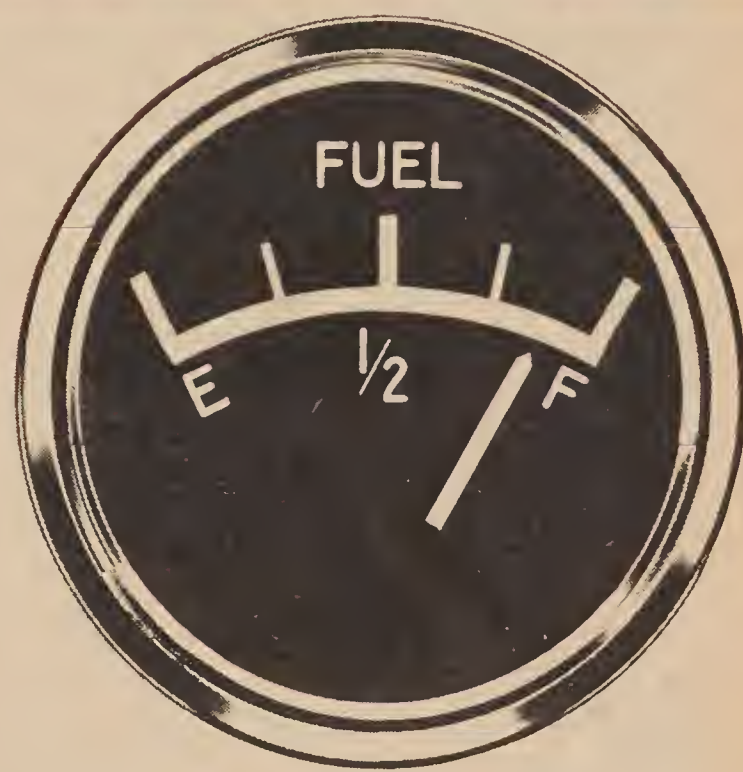
However, knowing that the mink, even with another mink, is a temperamental partner in the seduction process, they're fully prepared to get nothing but an enraged mink and a frustrated ferret! In any case, it'll be intriguing from a research standpoint.



David Brown Fuel Economy Adds Acres Of Free Plowing

In a year long swing around the country, interviewing owners of David Brown tractors, one of the most frequently mentioned features was its fuel economy. We heard such things as, "I can plow all day for less than \$2.00", or, "It uses so little fuel that we frequently forget to check it." These are not isolated comments. In every interview, fuel economy was mentioned by David Brown owners. But David Brown tractor economy doesn't stop there . . . they are lower in initial cost, lower in maintenance cost, too . . . another fact frequently mentioned by owners from coast to coast.

Join the convinced, ask for a demonstration of David Brown . . . the tractors that offer, as standard, features that are optional at added cost on competitive models.



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REVERSE ↔ OSMOSIS

Its future role on the farm

by James Albright

REVERSE osmosis, involving the use of a semipermeable membrane made from cellulose acetate, is going to play a role on the farm in the near future.

Why should a farmer be concerned about something like that?

Because it may be a way for him to obtain pure water. And some will be using this technique to concentrate maple sap instead of boiling it hours on end as is now done. It may also be an important food processing advance . . . used to concentrate egg whites in confectionery, baking goods and premixed food production as well as concentrating and fractionating whey in cheese production.

What is this new technology? The best way to explain it is to look at the various elements involved. Let's start with a semipermeable membrane.

A membrane is a thin, flexible film. Semipermeable means permitting a partial passing through or diffusion. A semipermeable membrane is one which will allow some molecules to pass through it and not others.

Cellulose acetate is the chemical ingredient used in the production of the semipermeable membrane. Several companies, including Eastman Kodak Company, have already developed processes for commercial production of semipermeable membranes from cellulose acetate. Kodak built upon the pioneering work it did in the field of cellulose chemistry while deriving safety-film bases, textile fibers, plastic molding compositions, general-purpose sheeting and lacquers.

Osmosis

The next important thing to understand about membrane applications is osmosis. Osmosis is a natural phenomenon which is occurring in your body as you read this.

Let us assume there are two solutions of different concentrations contained in a deep can . . . for instance, saline (salt) water and fresh water. Assume also that the two solutions are separated by a semipermeable membrane and there is an equal amount of pressure on the two divided solutions. The water will pass through the membrane but the salt will not.

The water will pass from the less concentrated side (fresh water) to the more concentrated side (saline water).

As the water is passing through the membrane, the pressure on the saline side is building up. Soon this pressure will have built

to the point where the flow of water will stop. This whole process is known as osmosis.

You can almost guess what reverse osmosis is. Let us, through some device, apply pressure to our supply of saline water. We increase this pressure until we have the opposite effect of osmosis . . . water flowing through the membrane from the saline or concentrated side. Remember, the salt molecules cannot pass through the semipermeable membrane.

The application is obvious. We can take salt water, or water with other kinds of impurities, and come up with pure water. As the world's water becomes more polluted, this process will become more important. Even if man should manage to stop polluting water, the process will still be of major importance because it will allow him to convert sea or other salt water into pure water.

Practical Now

Drinkable water through reverse osmosis is practical now. A portable, easily-installed home water purifier which removes dissolved mineral salts, chemicals and other impurities from home

tap waters, has already been placed on the market by the Linvion Corporation of Costa Mesa, California. The device, which operates on the principle of reverse osmosis, is being marketed as the Osmotic Water Purifier.

Easily attached to any faucet, this water purifier can produce two gallons of spring-fresh water in a 12-hour period. The purifier uses normal house water pressure to force a portion of the incoming tap water through the porous film. The impurities are flushed away through the sink's drain.

And this should be only a beginning. Governmental agencies, as well as private enterprises, have numerous experiments underway employing reverse osmosis to obtain fresh water from salt water, to recover pure water from polluted water, and to remove pollutants from wastes before wastes are dumped into streams and lakes.

Pure water reclamation is indeed a dominant issue. But for the farmer, reverse osmosis will have many other important applications. One is using this new technique to concentrate maple sap.

In the production of maple syrup from maple sap, a farmer is removing the water from the sap. Today, this is done by boiling many gallons of sap. With reverse osmosis, water molecules can move through a membrane, but other molecules will not.

The United States Department of Agriculture, experimenting at the Eastern Utilization Research and Development Division, has progressed to the point where an experimental plant known as the Eastern Utilization Reverse Osmosis Concentrator (EUROC) has been designed and constructed for the concentration of maple sap.

Under a pressure of 600 psi, maple sap is pumped through EUROC at five gal/min. In this manner, 50 percent of the sap's original volume of water is removed, thus doubling its sugar content. The concentrated sap, when reduced to maple syrup by a conventional boiling procedure, has the full flavor of maple syrup.

Cost Comparison

No data are available on the life expectancy of the reverse osmosis membranes, nor on the cost of a commercially-produced EUROC. Therefore, a comparison of costs between the two methods was limited to a comparison of energy costs (basically, cost of fuels).

The energy cost for obtaining maple syrup by conventional boiling was calculated to be approximately 1.5 cents/gal. of syrup produced. The energy cost of producing syrup by first running the sap through EUROC and then boiling came to approximately 0.062 cents/gal. This was about 1/25 that of the conventional method.

Obviously, one look at EUROC (shown elsewhere on this page) will tell you it is far from the point where an ordinary farmer will buy it. It should be only a matter of time, however, before the necessary refinements and simplifications will have been developed.

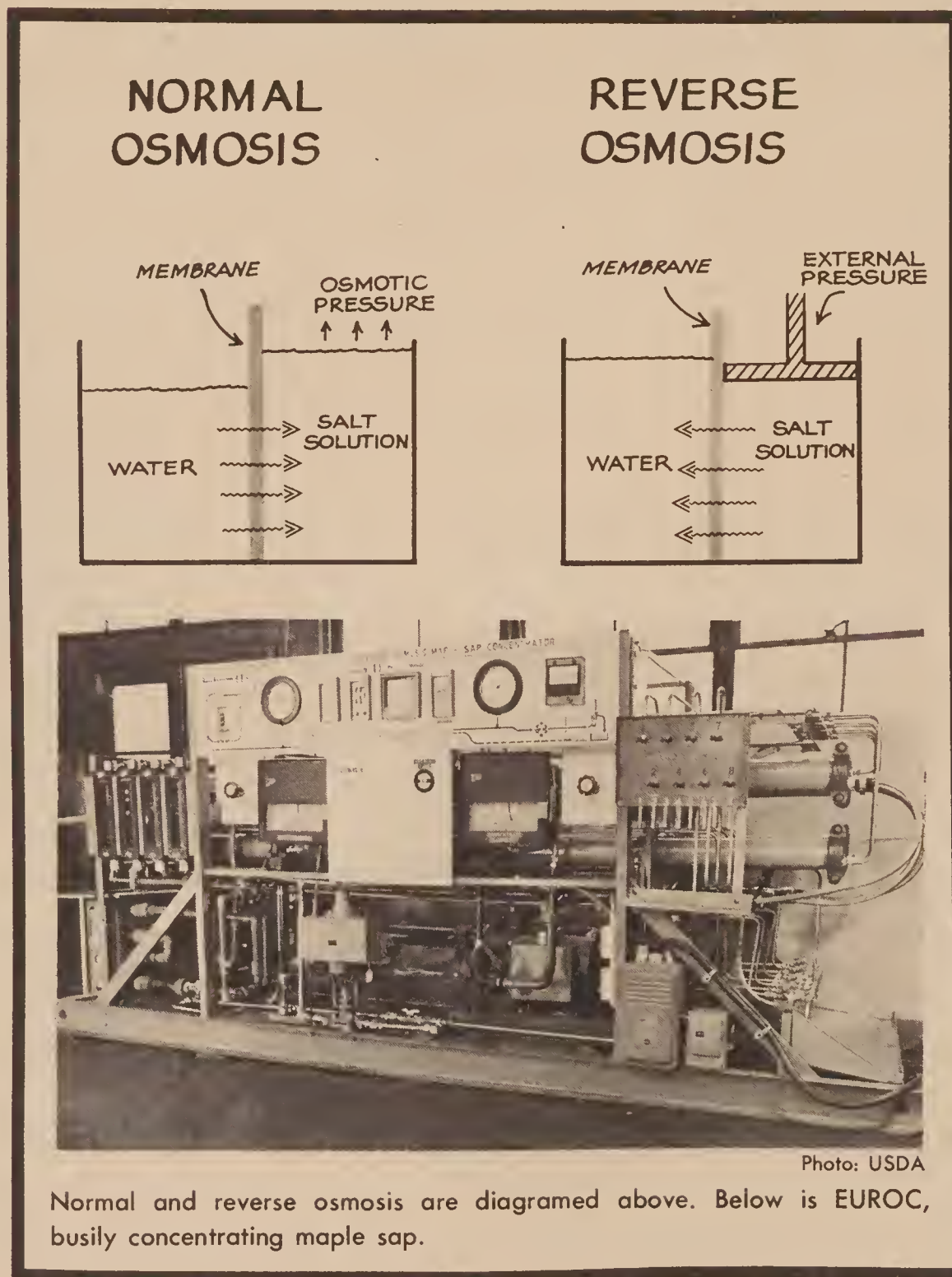
Food Processing

Reverse osmosis is well into the research stage in another area of concern to farmers . . . food processing. Egg white concentration is perhaps the most interesting food application of reverse osmosis simply because there aren't many other ways this material can be concentrated without denaturing the proteins in the albumen.

But this is certainly not the only food application of this new technique. The low total solids of cheddar, cottage cheese and other cheeses make it natural to try to obtain low-cost concentration of whey through reverse osmosis. And what about concentrating fruit juices by using this method?

Should a farmer learn what reverse osmosis through a semipermeable membrane made of cellulose acetate is all about? If you've read this far, you know what's its all about!

American Agriculturist, April, 1971

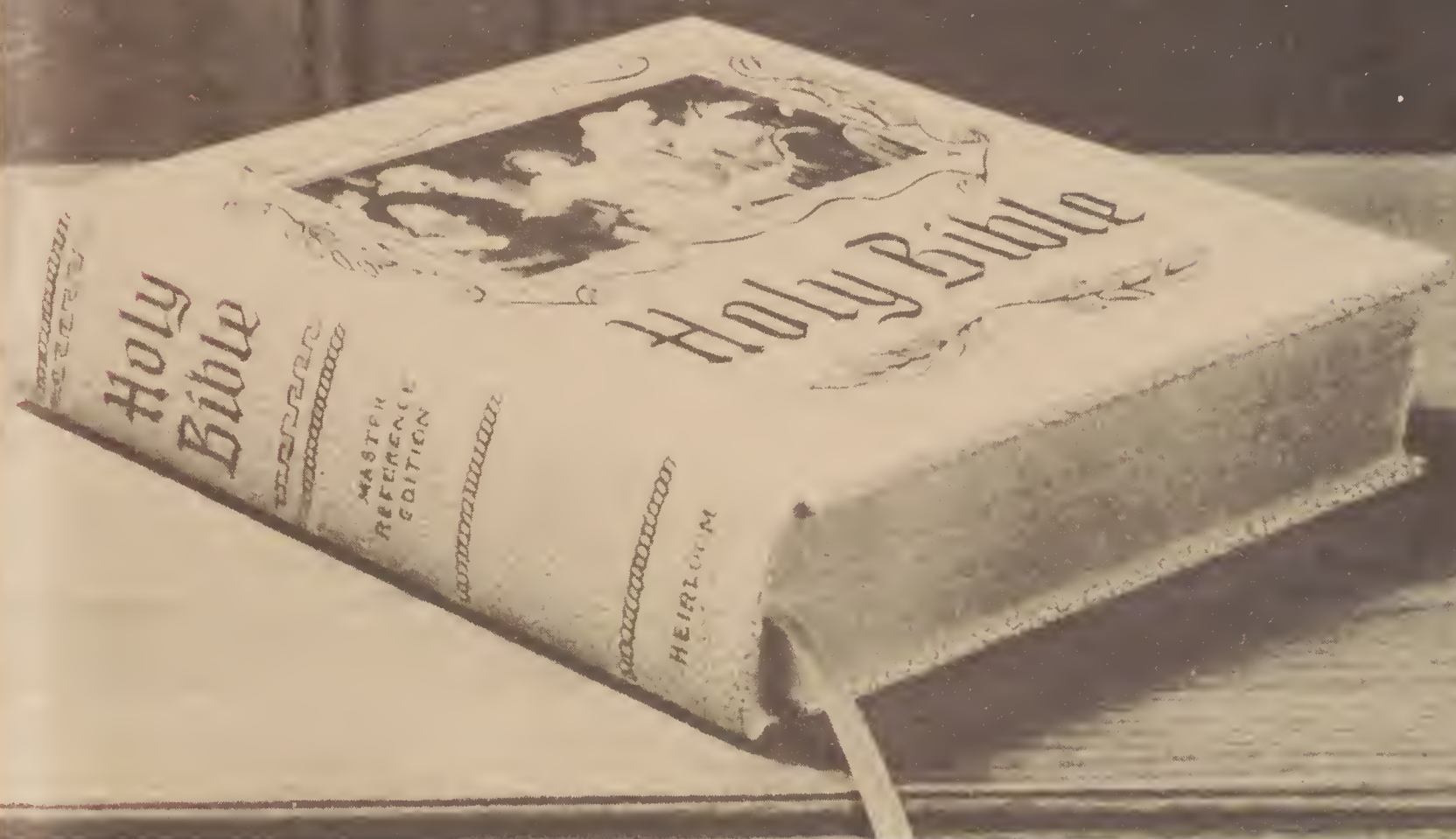


Normal and reverse osmosis are diagramed above. Below is EUROC, busily concentrating maple sap.

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We enjoy our

FIFTY-ACRE BUILDING LOT

by Bill Rawlings*

WE live in the country and enjoy it! Our initial search for rural land began about 20 years ago, shortly after we were married. Our specifications were to find a parcel large enough to give us some breathing space, not too distant from town, offering electrical service and perhaps a phone line. Topography of the land was not important; the minimum size of the plot would be 50 acres, and 15 miles would be our maximum distance from a town (or a place of work).

How would the land be used? First, we had to have a house. This would occupy at least an acre, including the lot. The balance would offer a garden, as well as a grove of Christmas trees, and a pond.

Lucky

Luck was with us. The 50 acres we found were only 5 miles from town; the site had formerly been a farm, but the house had burned 30 years before, and the barn had fallen down. Most of the land was open pasture, but thorn apples occupied a great portion, and weeds grew in abundance on the balance.

Some timber stood in one corner, although there was not enough of value to mention. A huge well had served the barn . . . it was 6 feet in diameter and 20 feet deep . . . and a smaller dug well served the house. This was going to be the source of all our water, we thought.

You will find that banks do not usually look with favor on financing the purchase of tracts of land unless one does intend to farm, to develop and sell building lots, or has some other method of proving he can make money on the investment needed. In our case, a wonderful mother-in-law acted as a bank; the Veteran's Administration guaranteed the money needed to build a house and garage, and our project got off the ground.

There were no native Christmas trees growing on the site when first

we came, but hemlock grew well in the small woodlot that we owned. We decided to plant evergreens in the spring, and sent an order for 1,000 to the New York State Conservation Department.

One day, a green Chevrolet truck with Department of Agriculture notations stopped in our yard, and out stepped Dave Anna, the local Soil Conservation Service technician . . . one of the finest, most helpful friends we have ever met. Dave made us do some thinking.

What, exactly, were our goals with this plot of land? What did we want to do with it? Did we want a pond? Were we going to plant more trees? Did we know what variety to plant in which soil type? Did we know what types of soil our property offered . . . and what crop each was best suited for?

Planned

Some time later, Dave had completed a plan for our 50 acres, advising us what to plant, where to plant, the right site to locate a pond, and even how to obtain federal cost assistance to help in planting trees, building ponds, liming the ground, and building fences. He made an overall sketch of the boundaries, superimposed this on the aerial photo, and subdivided the acres to show the recommended usage.

One of our goals was to enhance the wildlife habitat . . . attracting and holding any other wild creatures that wanted to live in harmony with us. Planting evergreens would give them cover, but food was a problem.

In Clover

One solution was to plant clover on some of the open land, but clover would not grow very well where the land needed lime so badly. The federal government usually has paid one half the cost of a liming program . . . and they did in our case.

Winter food for the rabbits was a major question; some of the fruitful thorn apples were left standing, while others were piled into brush

heaps. (A good conservationist NEVER burns brush heaps; they serve as a home for all types of small wild animals, and will eventually crumble and collapse, returning some humus to the soil).

Still there were not enough rabbits; we wrote directly to the New York State Conservation Department . . . and they sent literature aplenty. Finally, Joe Dell, chief wildlife biologist of the State of New York, made a field trip up to inspect the property and offer suggestions.

Built Pond

Dave next planned a pond for us, supervised the construction, and told us how to obtain part of the cost from the federal government. An initial stocking of trout, also from a federal fish hatchery, came through his efforts.

The pond offers a choice spot for summertime fun . . . swimming, fishing, or paddling a small boat about . . . as well as the winter sports of skating, sliding, even fishing through the ice.

The Extension Service of the Department of Agriculture sent us a list of publications available, among them a brochure on building pole barns. With these plans, and some lumber from our own woods, we built a three-stall building to house our tractor and various equipment.

The original purpose of the tractor was to plow snow, uproot the scrub apple, and aid in our various projects . . . but have you tried to get someone to plow a garden for you in the spring on the day YOU want it plowed? So a plow was added, and we turned our own furrows, rather than wait for someone else to do it at their convenience.

Got It Done

We never had plowed before, but our furrows . . . none too straight . . . did the job. And so a garden was added to our land. The Extension Service, and the seed catalogs, convinced us that we could grow almost anything . . . and grow we did! That garden fed us, plus three neighbors (one with a family of 10 children) and we even sold some cucumbers to a local grocery!

There surely can be no more delicious corn than that from your own garden, picked just as the water begins to boil in the pot, eaten as soon as it is cooked. No seed catalog can do justice to describing such a treat, although many try.

Folks are mighty grateful for a gift of most any home-grown vegetables. We know . . . we've grown them all and given away a greater portion than we consumed. But much of the joy in gardening comes from watching the garden grow, and in giving of the abundance.

Next came a small orchard and grape vineyard. The dwarf apples came into production within three years . . . just as the catalogs had promised. The grapes have provided an overabundance of juice, fruit, jam and jelly ever since they came into bearing.

Much help in selecting varieties came from a visit to the New York State Fair where a display is annually set up by the New York State Fruit Testing Association at Geneva, New York; a catalog of new and note-

worthy fruits is offered anyone interested in planting.

As for other types of trees, the district forester spent some time with us, cruising our woodlot, advising us which trees to remove, which to prune and which should be allowed to grow. He even went so far as to give us an idea of the amount of saleable lumber and a list of potential buyers.

It pays in New York State to check with your district forester before doing anything with the woods, if some come with your property. He knows the value of the timber, and what the current market price is; he knows whether you should sell "on the stump" or hire someone to cut and skid the logs to the roadside. He can also advise you on all phases of growing timber and how to increase the long-run value of your holdings.

Forestry advice from qualified public employees is available in most other northeastern states, too . . . for instance, New Hampshire has a forester in each county.

Changing

The countryside is changing, and our neighborhood is an excellent example. What was once a productive potato farm in our area has been purchased by a gentleman who merchandises sporting goods through several outlets. The potato barn has been remodeled into a horse barn, and the owner keeps a pleasure horse to ride over his 200 acres; his race horses sometimes appear at Vernon Downs.

His backyard boasts a swimming pool, and he drives a tractor over the acreage, sometimes pulling a rotary mower to keep the weeds and scrub apples from encroaching on his land. Not a potato now grows on this farm that once provided the restaurants of Rome, New York, with a major part of their requirements.

Another man has a three-hole golf course just outside his back door. He can step outside, tee off, and enjoy an uncrowded private course. If time, land, and money are available, he will be able to increase the size of his course in years ahead.

Muzzle Loaders

Every month, there is a meeting of the local Muzzle-Loaders Society at another farm on our road, a farm that used to carry 10 head of cattle. The cow pasture has been converted into a rifle range, and clouds of smoke drift up from the firing line. Not one farm animal lives where years ago a hard-working Yankee eked out a living from his small herd.

Advice

Our advice to the non-farmers who intend to move to the country would be:

Don't plan to make your living from the land. Use it instead for recreation, enjoyment, and a challenge.

Do with the land those things you most like to do. A garden . . . Christmas trees . . . pond . . . rifle range . . . choose your own uses. The land is there for you.

Get expert advice. It's free, and you need only ask. We have never

(Continued on page 19)

American Agriculturist, April, 1971

*RD #4, Rome, New York 13440.

(Continued from page 18)

found an employee of the USDA who did not impress us with his knowledge of soils, land use . . . and with his desire to be helpful. Contact the nearest office of the Soil Conservation Service, and tell them what you need. Join your county Extension Service organization. Its bulletins and publications are invaluable in explaining many things . . . from how to plant a lawn or garden, to growing watercress.

Join 4-H

Have your children join 4-H, an organization that sponsors many projects for young folks. Raising and showing horses is one with great appeal, and 4-H bulletins are a

source of excellent information on this and other projects.

Be a good neighbor. While we were working on building our house, the adjacent landowner stopped to visit and told us that our part of the line fence started at the road and went halfway to the corner of the two properties.

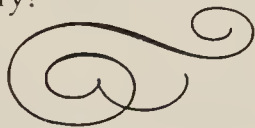
This didn't make sense; after all, we had no cows, nor any livestock to keep enclosed. But . . . to keep good neighbors . . . we **did** fix and build the fence, the "first time in 20 years there had been a good fence along that line." And that neighbor plowed our driveway free of charge through the winter. No money was asked . . . or accepted . . . because the fence had been built.

Live with nature. Many who have

ponds build a huge bonfire, and moonlit winter evenings will find a crowd gathered round, some warming themselves by the fire while others skate. Prepare for the winter and use a snowmobile; learn to use snowshoes and skis.

Summer is the season to enjoy swimming, hiking, and gardening. Fall finds the Christmas-tree grower thinning his plantation, and putting the profit in his pocket. Spring is the time to plant and enjoy the smell of fresh-turned earth, the robins returning from the south, new life in all forms coming into being.

Yes, there's no place to live like the country!



THE BARN

The barn declares itself allied with toil; its simple structure wears the badge of grain, it stands, a monument to seed and soil and priceless elements of sun and rain. The barn is summer's precious bounty held in strong protective walls for winter use, the barn is summer's utter goodness spelled in words of plenitude, a season's truce. Abundance shapes the barn, designs its form for holding treasures borne from fertile lands; against assault from harsh destructive storm or hungry want, the sturdy guardian stands. The barn is evidence of earthy wealth, a glad salute to happiness and health.

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See your Badger dealer about the new, longer lasting Badger Forage Box and 54 inch Forage Blower.



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If you have grassy weeds, use Sutan alone for even more economical weed control.

Just mix Sutan plus atrazine in the soil as you work it for planting. You control weeds for sure, yet Sutan leaves no harmful residue and the low rate of

atrazine reduces hazards to rotation crops. Just follow label directions.

Use Sutan plus atrazine and get higher corn yields easier to harvest. See your Stauffer supplier now. Stauffer Chemical Company, Agricultural Chemical Division, New York City.

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Doc Mettler Comments on:

NAVEL SWELLING



DID you ever notice what a change in spirits you can have by just hearing the frogs peeping for the first time in spring? Often in late winter I try to remember just how they sound and I can't.

Then late some afternoon I will step to the back door to look toward the hills for deer and there it is, coming from some swamp hole . . .

a tiny sound, but what a great feeling it gives! Whatever problem I was pondering on seems easier, and I'm ready to get back to doing instead of just thinking.

"Doing," to a veterinarian, often means taking the time to give someone a detailed answer to a question he has asked, instead of a grunt or, "Oh, that's nothing to worry about."

One of the most common questions is, "What is the swelling on this calf's (or foal's) navel?" Usually it is asked as sort of a side issue considered not serious enough to call the veterinarian for, but big enough to bother the person who is asking it.

Diagnosis

To diagnose the cause of a swelling in the navel area, one must take time to feel the swelling. Usually this is all that is necessary, but a thermometer reading is also helpful.

An acute, hot navel infection is the most usual cause of swelling, with navel abscesses next and then umbilical hernias. Very often the acute hot infection leads to the abscess which later can lead to the

hernia. Of course, many hernias are congenital . . . the foal or calf is born that way.

I have seen a few calves that were born without the navel opening closing, and a loop of intestine would appear shortly after birth. Theoretically these could be saved by immediate surgery, but I doubt if many are noticed until it is too late.

Antibiotics

The acute hot swelling will appear within three days after birth, often on a calf that is from a dam who retained her placenta. The temperature is above normal at first, and usually the calf or foal is seriously ill. Your veterinarian can help this animal by using antibiotics and, in some cases, other medicines.

Very often the calf is down, unable to rise, and the owner . . . unless he has seen other cases of navel infection . . . guesses the sick young one has pneumonia. The use of fluids, heat lamps and stimulants in addition to the antibiotics can sometimes save them. Some of them die despite treatment.

No matter how bad they look to you, however, it is worth trying to save them, because some of the most seriously ill are the ones that will live.

If the acute hot infection is not treated and the animal lives, infection may spread to the joints and cause a cripple. More often it will abscess.

Difference

To tell the difference between an abscess and a hernia, use your fingers. If the swelling seems fluid-like, but cannot be easily pushed up into the belly cavity, it is probably an abscess. If it is a hernia, it can be pushed up through a "ring" into the belly cavity. In either case, unless you have seen a lot of these, you'd probably better ask your veterinarian to make the diagnosis.

If it is an abscess and the calf or foal has no fever, just painting with tincture of iodine will usually bring it to a head. If there is a fever, of course, antibiotics are called for. If in doubt, **don't do anything** until you talk to your veterinarian.

Let Nature Do It

One of the hardest things to do is convince a client to leave something alone and let nature take its course. With a cold abscess or a hernia of the umbilical region, the safest thing is often to do nothing. Most umbilical hernias will disappear.

(Continued on next page)



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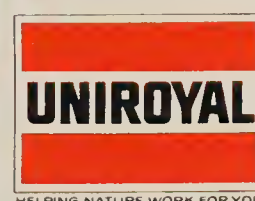
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Mettler

pear by the time the calf is six months old or the foal is a yearling. If you have your veterinarian check a hernia when the animal is a few weeks old, he can give a pretty good guess as to whether it will heal by itself. In calves, a tight girdle-like tape bandage may help healing. At six months of age, if healing is not nearly complete, surgery can be done. If needed, surgery should not be done much before six, or after eight months of age.

Clamps

With foals, some veterinarians have good results by using clamps instead of surgery. At a year of age, surgery is possible . . . and can take care of most unhealed cases.

If a heifer still has a hernia at breeding age, it would be better to fatten her and beef her than to breed her, since the weight of the calf could cause serious problems. As an exception, I have seen at least one umbilical hernia case that was bred and never had any complications, and I am sure there have been many more.

Being sure animals are clean and free of infection before breeding is the first rule in prevention of navel troubles. Clean, sanitary calving or foaling areas and treatment of navels with tincture of iodine or other antiseptic at birth should also be used.

If a certain stallion or bull seems to throw a high percentage of hernia offspring, his use should be discontinued, at least on the females with whom he produced the offending offspring.

Certainly umbilical swellings are minor problems, but often it is the minor problems that cause the most trouble in farming. I hope by our little discussion this small problem will seem a little easier. If it doesn't, rely . . . as usual . . . on your veterinarian to help you with it.

FHA PROFILE

"Mr. Average Operating Loan Borrower" recently was introduced to America by the Farmers Home Administration.

"Mr. O. L. Borrower" is the statistical average from a sampling of the Farmers Home Administration's more than 90,000 active Farm Operating Loan borrowers. He is 39 years old, married and has three children. His gross cash receipts average \$18,840, up 62.6 percent from \$11,590 five years ago. He earns some money from part-time work off the farm, but mostly his receipts are from farm sales of \$15,820.

He puts \$10,670 per year back into the community for operating expenses, and about \$3,380 for family living. This gives him an average net income of \$8,170.

"Mr. O. L. Borrower" is ambitious and hard-working. His net worth has increased by \$5,270 . . . from \$12,660 in 1964 to \$18,380 in 1969. He has acquired property . . . real estate, more than \$22,000; livestock, more than \$9,000, and machinery and equipment, \$9,760. All his property together is worth \$46,370. He has debts, too. They amount to \$27,990 . . . but that still gives him a healthy increase in net worth.

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The 4-H'ers' best friend takes the spotlight at this Dog Obedience Contest.

THE 4-H'ERS' BEST FRIEND

by James H. Rice*

There are two 4-H programs for youngsters with a dog. The Dog Obedience Training Program is one where a boy or girl trains a dog in the fine art of obedience. Rigid competition is not stressed in this program, as it is in some professional organizations.

A 4-H dog does not have to have registration papers... in fact, he can be a mutt, a purebred, or just about anything. The Dog Obedience

Program involves ten weeks of intensive training for dog and master. Dogs are taught to heel, to sit, and generally good behavior.

Second Program

The second program in which a variety of activities may be undertaken by the young dog fancier is the Dog Care and Feeding Program. Among the activities included are grooming, readying for show, hunting, health and nutrition... and even teaching young and old dogs new tricks.

Veterinarians, kennel owners, and professional dog handlers share their experiences and know-how with the 4-H'ers.

Participating in the program certainly is its own reward. When a boy or girl has a well-trained dog that will make him and his parents proud, this is the biggest reward.

The National 4-H Dog Care and Training Program is sponsored by the Ralston Purina Company. Each state adapts the program for its own use, and each county puts the program to work.

For years, the 4-H organization has encouraged farm boys and girls to accept the responsibility of growing and showing calves. The programs involving dogs provide a comparable opportunity to both farm and non-farm young people... and they have accepted the challenge in growing numbers.

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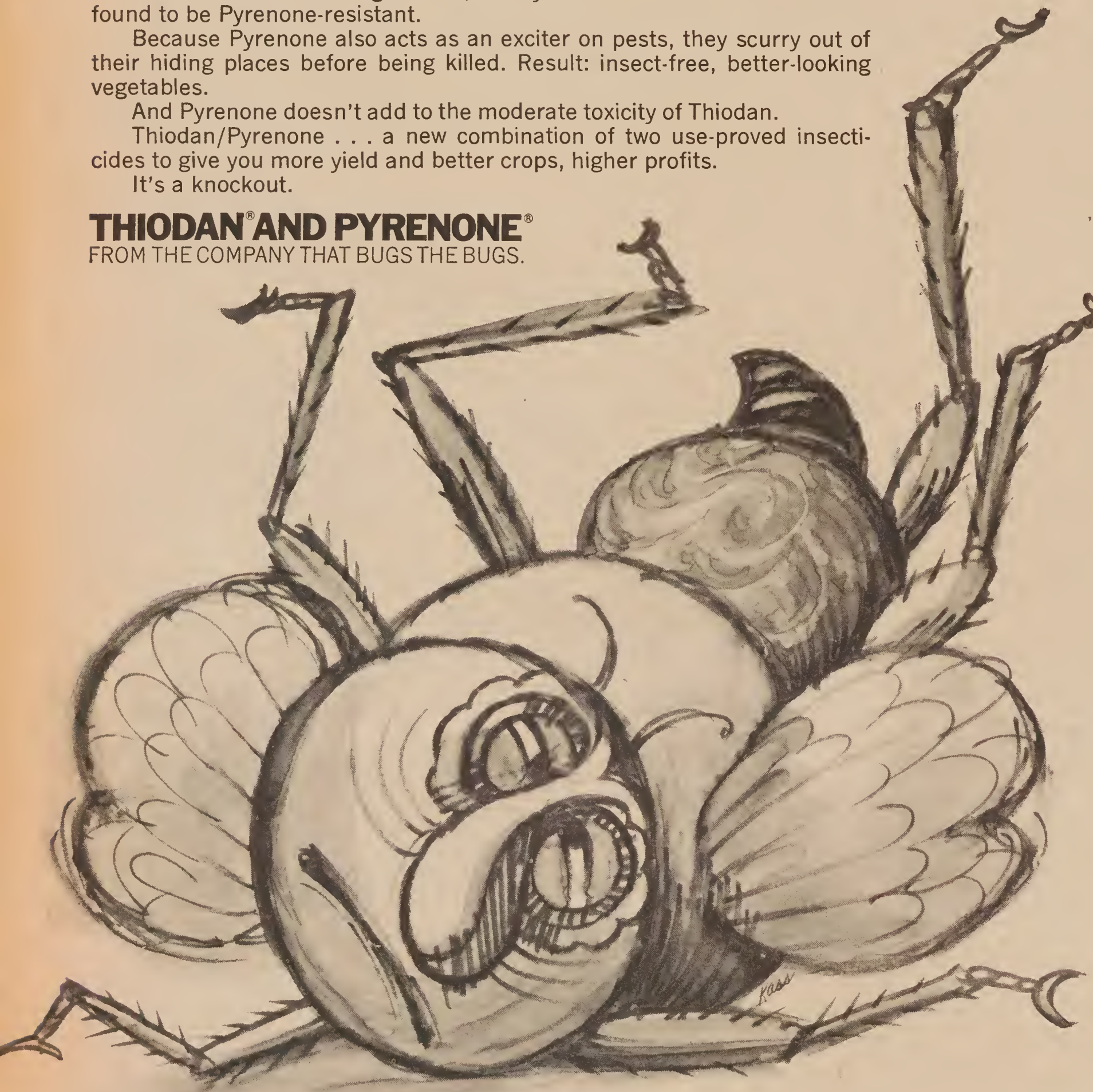
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It's a knockout.

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COUNTRY BEST

Country Best, Inc., an organization formed by three of the nation's largest farm cooperatives to market brand name frozen farm foods, has chosen for its headquarters the TRW Building in Westgate Research Park, in Fairfax County, Virginia.

The three cooperatives are: Agway, Inc., of Syracuse, New York; Gold Kist Inc., of Atlanta, Georgia; and Western Farmers Association, of Seattle, Washington.

Agway will supply potatoes for the Eastern market from its processing plant at Washburn, Maine; Gold Kist will supply chicken from its new Lithonia, Georgia, plant; and Western Farmers will supply both potatoes and fried chicken for the West Coast market.



"I must be getting old. I get tired now in ten or twelve hours."

Food For The Spirit



by Robert L. Clingan

ONE DAY AT A TIME

Many people have labeled the youth of today as "the now generation." A news commentator on television reported that people were not interested in the weather of next week; they wanted to know what the weather was going to be like in the next twelve hours.

To many people who have learned to be concerned with the present, religious faith has seemed to be a concern for an afterlife beyond the grave, or a consummation of history at the end of time. People who think in that vein have failed to examine very carefully the great hymns found in the book of Psalms, the imperatives of the prophets, or the teachings of Christ.

The Psalmist who wrote Psalm 90 sang . . . and prayed . . . "Teach us to number our days that we may get us a heart of wisdom." To number a day was to give each day a value of its own; it had a different number than the day that preceded it and the day that followed it.

The prophets throughout the Old Testament were continually saying, "Now is the time" . . . "Decide this day whom you will serve." There was no escaping the issues of the present by the vision of tomorrow. Each day was a moment in time and a point in history through decisions that belonged to that day as to no other.

"Sufficient Unto the Day"

Jesus Christ gave a classic teaching in his words, "Sufficient unto the day is the evil thereof," which the modern translation, "Good News for Modern Man," renders, "Do not worry about tomorrow; tomorrow has enough trouble of its own."

Through an examination of the Lord's Prayer, we also find that his disciples were to pray not for economic resources enough for a lifetime and a legacy, but, "Give us this day our daily bread." Daily bread . . . this day . . . were the key phrases.

The disciples were concerned about dating the consummation of

history, the coming of the Kingdom, and the end of time. In the records of the first chapter of the book of Acts, Jesus said, "It is not for you to know the times or the seasons . . . but watch and pray that you do not become tempted."

Focused

If we really take seriously the emphasis of the Bible on "this day" we will find our lives focused where attention belongs. We need to accept each day as a gift of God, and to use it as if there were no other. This will save us from overburdening each day with concerns of the distant future. It will save us from crossing bridges that we may never reach or, having reached them, finding that the river has changed its

course or that the road turns before the river is reached.

Alcoholics Anonymous asks its people to take life a day at a time and believe they can manage that day and their problem successfully. This procedure reduces life and its problems to manageable units.

It also means to cherish each day as something precious of itself. A day that important cannot be poisoned by ill will, bitterness, self pity, or resentment. We haven't time for those perversions of the spirit if we value this day in which our lives are lived.

Return this day to God with gratitude; return it filled with good thoughts, good words, and good deeds. A day well lived makes possible good days to follow!



TO ED EASTMAN

Ed is gone, there's naught but memory lingers
His kindness, in our hearts, will e'er remain;
The thoughts we shared were as the touch of fingers
Across the reach of time from New York to Maine.

So rest in peace until that glorious dawning
When we as kinfolds in that wondrous land
Shall all clasp hands together on that morning
And walk with God, then we shall understand. — H. Rae York, Frankfort, Maine.



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Retard those growths of cankerous
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Which dethrone God and then deride;

And reconcile our wilful souls

Throughout this race for mortal goals

To that lone hand which deals on earth

To learned, death; to learner, birth.

Monroe Conklin



MEET THE CONSTRUCTIVES

The AMERICAN AGRICULTURIST Foundation
is proud to encourage these young people . . .

by Isa Liddell

NOW that the school year is well in gear again and students and teachers are planning toward awards, let us consider a few . . . we have space for only a few . . . of the many fine young people who were chosen by their teachers and principals for the AMERICAN AGRICULTURIST Foundation Award for the year that ended last June.

It accomplishes nothing to lament the fact that space just does not permit mention of all the Foundation winners, but whether published or not, the reports are read with interest by the members of the Foundation board of directors and by the staff of AMERICAN AGRICULTURIST. It is a project that we all look forward to each year with great enthusiasm. Well . . .

Ladies First

Working alphabetically through the states, the first name to be mentioned is that of **Frances Mordasky of Rockville High School, Connecticut**, recipient of one of our Girl-of-the-Year awards of \$200. Frances' achievements have been written up in another article that appeared in AMERICAN AGRICULTURIST, but our Foundation report would not be complete without a mention of her fine characteristics and the pleasure it gives us to be able to help further her education while she is studying at Purdue University.

At **Easton High School, Maine**, **Andrea Carter** was presented the AMERICAN AGRICULTURIST Foundation Award at the annual mother-and-daughter banquet. Andrea has been active in all facets of school life, has held many offices, and carried much responsibility. She is the third oldest member and the only girl in a family of six children, and is now studying at St. Joseph Hospital School of Radiology at Bangor, Maine.

Priscilla Ann Hoover, Bridgeton High School, New Jersey, has a fine record in homemaking studies. She did exceptionally well as a member of the work experience group, and her grades in child care and home relations were above average. And Priscilla found time to be active in school and community activities, plays tennis and softball, and is a member of the young people's organizations in her church.

Most Improvement

One of the standards for the AMERICAN AGRICULTURIST Foundation Award is that it be given to the student who has shown most improvement during his or her high school course. **Ellen Yoeckler** of

Cazenovia Central, New York, fits into this category very well. It has been Ellen's sincere desire to gain as much knowledge as possible. Through honest effort and extra time spent in research and study she has achieved much. She is a good citizen, thoughtful of others, and has a pleasing personality.

At **Endicott Junior College, Beverly, Massachusetts**, **Jill Roemer** is studying child development. During her four years at **Guilderland Central, New York**, she was a good student and active in athletics, music, and youth fellowship in her church. She did volunteer work with children at the Albany Medical Center, worked with Spanish exchange students within her school department, and continually assisted her teacher with retarded students. Mrs. Ryan, teacher of home economics at Guilderland, feels sure that Jill would make a wonderful home economics teacher.

Effort

Evelyn F. Smithkin, Homer Central School, New York, has made a serious effort to apply home economics knowledge not only in classroom situations but also in the home environment. Many times she brought to class clippings that were pertinent to the subject matter under consideration. She reported to her teachers successes and failures, and tried to analyze the reasons for them.

Her church and community rate high with her. Evelyn is a quiet girl, but when asked will give her views even though they may be contrary to the general classroom feeling . . . and she usually knows why she feels as she does.

At **Minerva Central School, Olmstedville, New York**, the award went to **Doris La Fountain**, a congenial, friendly girl, always ready to assist with the extra chores. Doris has carried full responsibility for her home for several years . . . caring for the home and cooking for her father and three younger children. She is a good student, works hard in her classes, and is well liked by both teachers and students.

Donna Lupinski of Mount Markham Central School, West Winfield, New York, was our other Girl-of-the-Year, and she is now studying home economics at Plattsburg, and planning on a teaching career.

At **Sherburne-Earlville Central School, Sherburne, New York**, **Elizabeth Hodge**, a junior, was the recipient of the Foundation Award. She lives in a mobile home with her father (a welder) her mother (supervisor of the nursery in Norwich Hos-

pital) and a brother and sister. She is a happy, cheerful, sincere and responsible young lady, very much interested in people and their welfare.

Elizabeth is president of the FHA chapter and, always willing to do more than her part, she has been chairman for many dances, banquets, and picnics for the club.

She is a candy striper and nurses' aid and is in the BOCES nursing program, having a high rating with her instructors. Besides that, she is considered one of Sherburne's best baby sitters.

Trudy Dew, winner at **Trumansburg Central School, New York**, is now a married lady and probably in Canada, where her husband wanted to find work. She has looked forward to being a homemaker, is a fine manager, and has a good understanding of budgeting.

Incidentally, Miss Margaret Elliott, homemaking teacher, draws our attention to the fact that Trudy is the 25th girl at their school to receive the AMERICAN AGRICULTURIST Foundation Award.

High Enthusiasm

Very enthusiastic is Miss Louetta M. Rainesalo of **North East High School, Pennsylvania**, about her student **Debby Turk**. Although handicapped by extremely poor eyesight, Debby is an academic honor student, and is majoring at Thiel College in biology.

She is deeply interested in the Girl Scouts, and has worked with them a great deal, as well as being active in church groups. Her hobbies include swimming, sewing, cooking, hiking, singing, but her favorite is her guitar. After graduation she hopes to get a job doing research in some phase of animal psychology or ecology.

At the **People's Academy, Morrisville, Vermont**, **Mary Foster** was a conscientious, hard-working "A" student in her classwork. She is planning on taking an LPN course. Most of her weekends and vacations have been spent serving at the local hospital.

Gentlemen Next

The first-mentioned of our Boys-of-the-Year also hails from Connecticut. **Eugene Sansone** was a graduate of **Lyman Hall High School, Wallingford, Connecticut**. Since Eugene's achievements have also been written up in AMERICAN AGRICULTURIST, it is sufficient to say here that we are very proud and happy to have had the opportunity to acknowledge and encourage such an outstanding student.

Roy S. Walls, Jr., of North Harford High School, Pylesville, Maryland, was selected at his school for the Foundation Award.

Roy entered the pre-vocational program in the eighth grade, was recognized as a cooperative pupil, and soon became outstanding in agricultural science and mechanics. By the time he reached the twelfth grade, he was a recognized leader in solving difficult problems, besides being an outstanding member of the FFA chapter and of the National Honor Society. Roy is now studying at the University of Maryland on a full four-year agricultural scholarship granted by that institution.

Conservation takes the spotlight with **Philip A. Truesdell**, who was chosen for the Award by **Wachusett Regional High School, Holden, Massachusetts**. Philip was secretary of his FFA chapter and vice-president of the Massachusetts Society FFA. He is very much interested in wild-life and natural resources conservation, and during last summer he spent four weeks doing conservation and trail repair work in the Great Smoky Mountains National Park.

Now studying agriculture at Cornell University is **Mike Shelmidine**, who graduated from **Belleville Central School, New York**.

In high school Mike was active in FFA work, holding many offices, won the Empire Degree, and was a member of the National Honor Society. He played basketball on a championship team, and is the proud owner of the Junior All-American four-year-old Holstein.

He has received many 4-H honors in judging and showing, and was named the top FFA member in his four-county district in his junior year. His vocational agriculture teacher feels sure that Mike will continue to make his mark in agriculture in the years ahead.

David Damour is our other Boy-of-the-Year. He studied at **Ellenburg Central School, New York**, and is continuing his studies at Canton Agriculture and Technical Institute. David has had an outstanding record of leadership and achievement, and it is heartening to all of us to have an opportunity to encourage and assist such a fine young student.

Top Student

Living and working on a 100-acre dairy farm, **Thomas Wright** has learned a great deal about the business. He also delivered milk on a retail route for a year.

A top student in agricultural mechanics at **Franklin Academy and Prattsburg Central School, New York**, Tom helped overhaul several engines, both large and small. His fellow students respected his mechanical ability, and often turned to him for help. Besides this, he was active in the FFA chapter and held offices, including two years' membership on the chapter meeting contest team which won the special district contest each of these two years.

A busy young man during his high school years was **Carl VanVleet** of **South Seneca Central School, Interlaken, New York**. He consistently rated "A's" in agricultural grades, placed third in dairy judging at Trumansburg Fair in 1968, in the first ten at the State Fair with a blue ribbon, and first in 1969 at Trumansburg Fair.

For three years he displayed apples at Rochester Fruit Show, judged apples each year, and was fifth in 1969. He represented the chapter as delegate at the State Convention in Corning in 1969 and was chairman of the booth exhibits on freeze branding at Trumansburg and Seneca County Fairs. The exhibit placed first.

Mr. Harvey Lyndaker, teacher of vocational agriculture at **Medina Central School, New York**, describes **Charles Pettit** as "one of the best missionaries for agricultural youth

(Continued on next page)

American Agriculturist, April, 1971

I have ever had in my department." Not only outstanding in his agricultural activities, Charles won the Empire Farmer degree, an FFA speaking contest at the Horticultural Show at Rochester, and was a member of the Poultry Judging Team which won second place at the New York State Fair.

Charles has set an example in sports, too... twice captain of the wrestling, football and baseball teams during his junior and senior years, all-league tackle in football for two years, sectional wrestling champion and league wrestling champion.

He was elected president of the Medina High School Student Association, selected for Boys All-State, and chosen as an exchange student for a week's exchange with a Canadian school.

Best in Class

When Isaac Conley, Jr. transferred to the agricultural department at Phelps High School, New York, he had the background picked up at home helping on the 500-acre cash crop farm. In his junior and senior years he made great strides.

He contacted a neighbor and worked out a written lease on five acres of land for his own field-bean enterprise. He kept his own financial records, paid for everything, and came out well ahead.

His next accomplishment was being elected president of the FFA chapter in his senior year. Then he expanded his enterprise by purchasing five head of beef, which he now manages, besides taking on more

responsibility at home. He is now studying at Cobleskill Agricultural and Technical College, specializing in a one-year agricultural mechanics program.

Hudson Valley

Also at Cobleskill is John Dawson, who graduated from Taconic Hills Central School, Hillsdale, New York.

John has had a large part in the responsibility of making decisions and doing the work on a dairy farm with about 60 milkers. Also, he has operated and done much of the maintenance on the machinery and equipment on the farm.

At Rockwood Area High School, Pennsylvania, Dean Hay was chosen by his teacher and principal as an outstanding junior. He is active in

FFA activities, judging contests, leadership training programs, and is an excellent student, a member of the National Honor Society.

Dean plans to work with his father on their home farm, eventually assuming the total duties of farm management either on the home farm or on one he may purchase. But first he plans to attend college and further his agricultural education.

Keystone State

David Swartley, Upper Bucks County Area Vocational-Technical School, Perkasie, Pennsylvania, likes his agriculture course so well that he wants to become a vocational agriculture teacher. He has shown great growth as a student, gets along well with his fellow students, has maintained an above-average aca-

demic record throughout high school, and been active in FFA. His teacher describes him as honest and dependable, willing to accept responsibility, and to go out of his way to do the extras, mature in his thinking, and with a pleasant personality.

The description of David Swartley about sums up the traits outstanding in these winners of the AMERICAN AGRICULTURIST Foundation Award, which has been presented to students of the high schools in the Northeast since 1942. That means, of course, that there are a great many of them still remembering the pride they felt in being chosen. Without the responsibility engendered by farm life and living, there would be a great deal missing from American life.

SHOCKED COWS

Excessive voltages of electric current on domestic water systems can be detected by cattle, and affect their water consumption... and in turn their milk production.

So reports Lloyd B. Crane and M. H. Ehlers, at Washington State University, Pullman. A test group of cows consumed less water as the voltage was increased during a two-month period, refused to drink at eight volts, and returned their water consumption to near the control-group level when the voltage was reduced to normal.

The research was undertaken following an investigation of poor milk production on a well-run Jersey dairy farm in western Washington which revealed that the cause was "electrified water."

The Washington engineers point out that humans, with insulating skins and foot coverings, have considerably greater resistance to electricity than do animals with wet mouths, and usually standing in mud around a watering system.

"At five to ten volts, currents between ten and twenty milliamperes can flow through the animal," they said. "Unfortunately, the animal doesn't talk about this, and does have to have some water for survival. The degree of annoyance to the animal depends on the current level and the sensitivity of the breed or particular animal."

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All of the V-8's available in the International fit these requirements—because they're the same engines we bolt into our big, gas-engined highway rigs. And the GVW on those trucks runs upwards of 27,500 pounds.

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NORTHEAST FARM EXPERIENCE



MORE SIDEHILL CORN

Unfortunately for many Southern Tier (New York) dairy farmers, good level cornland is in short supply... and those wet, erodible hillsides are awfully tempting. Farmers who have plowed and planted these slopes to corn have generally experienced a high loss of topsoil and productivity. It appears as though they lose the land if they grow corn, and may lose the farm if they don't!

One successful solution to this dilemma on many farms has been to construct nearly parallel diversions across the slope and stripcrop the land between in a rotation of corn and hay. The diversions conduct excess water away, and... by breaking up the length of the slope... reduce erosion. The alternating sod strips further reduce erosion; a farmer can use a 6-year cropping system (corn-corn-oats-hay three years) on soils previously suitable for permanent hay only.

An Example

A typical example is the Forrest Leach farm near Jasper, Steuben County. Forrest's herd numbers 60 cows, and growing sufficient forage to achieve top milk production was getting to be more difficult each year.

A 56-acre field of Volusia-Mardin soils on a nearly 12-percent slope offered an excellent opportunity to test this package of conservation treatments. Forrest maintained that, without the field diversions, it was too wet to plant anything but hay which yielded an average of 2.5 tons per year in two cuttings.

Three nearly-parallel diversions were dug across the field, outletting into natural waterways at each end of the field. The diversions were spaced about 400 feet apart... with a channel width of 30 feet, they leave 370 feet of cropland between. The spoil from the diversion channels was spread in a smooth 40-foot band on the downslope of each diversion. The channel bottoms were scarified, limed, fertilized and planted to an alfalfa-birdsfoot-timothy mix.

Yields Up

Subsequent to this installation, Forrest has been able to start that six-year rotation mentioned previously... in strips on the land between the channels. Although he planned for yields of about 15 tons of silage, 60 bushels of oats and 3.5 tons of hay per acre, actual production from the field has been significantly better. In 1969, corn silage on this field yielded 22 tons to the acre, and they hay each 5 tons in the undisturbed areas.

Even the hay in the diversion

channels attained a yield of 2.5 tons per acre. In total, the productions of hay, oats and straw from this field has held nearly constant while producing about 275 tons of corn silage where none was produced before. This is equivalent to adding an extra 18 acres of continuous cornland to the Leach farm!

The Cost

How costly was it to raise the productive capacity of the soil to this level? The job was done on a contract basis at 18¢ per foot of diversion for a total cost of about \$980. That averages out to be \$17.50 per acre. When spread over the expected 25-year life of the diversions, the annual cost of the system is only \$1.36 per acre, including interest costs. That's a pretty small investment when you consider the current cost of other farm needs.

An economic analysis of the system before and after showed that installation of the diversions increased the net value of production by about \$6.00 per acre per year. This amount is sufficient to pay off the \$17.50 cost of the treatment package in about three years. — Robert Caldwell and Jack Kahabka, S.C.S.

NURSERYMAN

Ted Clark of Spencer, New York, is a farmer whose specialty is raising young ones... heifer calves for dairy replacements, and baby chicks for started pullets. He has two groups of 50 young calves and 60 older ones well underway, and is raising birds in cages (22,000 at a batch).

He buys most heifer calves at auctions, a few direct from dairymen. He likes 'em to weigh 95 pounds, and selects by using a practised eye. "Ninety percent of all good-looking Holstein calves are AI-sired," Ted comments. "There just aren't very

many really poor dairy herds left."

Ages of animals in each batch usually vary no more than three weeks. Ted prefers to start his new calves after the cold weather breaks in the spring, and start a new batch no later than the end of August. This way, disease problems are minimized.

Disease has always been the bugaboo of raising groups of calves, especially when they're assembled from a number of different farms. Ted reports mortality rates no higher than five percent... and part of the reason is the extra care he provides them in a nursery barn near his home.

Antibiotics

When calves are unloaded, they all get a shot of a combination of antibiotics. From then on, medication is not given routinely... but on the basis of Ted's eyeball evaluation of the sparkle in the eye, and the slant of the ear. When changes there denote a "droopy calf," then he takes a temperature reading and medicates if necessary... or calls the vet. The combination of several antibiotics... supplemented with an antihistamine... cures most health problems.

In 1970, Ted started 50 calves later in the year than he likes, so he vaccinated them for shipping fever when he moved them from the nursery barn to the cold growing barn.

Heifers are bred naturally by "heifer fresheners"... either a scrub Jersey bull or a purebred Angus to keep calves small. Timing brings heifers to freshening at 24 months of age (1000-1100 pounds). Ted comments, "I can't afford to delay freshening for the extra money dairymen will pay for bigger animals."

Magnetized

At about a year of age, a magnet is slid down the gullet to remain in the paunch to pick up hardware. All heifers are vaccinated for brucellosis, and calves are dehorned by using an electrical-heat dehorner. Older animals have access to back-rub oilers that keep lice and mange under control.

Heifers are sold when close-up to freshening, ordinarily at the Clark farm. Ted has not grown heifers on contract, preferring to own the animals outright... although he has at times offered a dairyman first chance to buy back his own animals.

Why the concentration on raising replacements, rather than production of milk or eggs? "Well," Ted com-

ments, "there is less labor and investment required. Raising heifers enables me to profitably use some available pasture. I have produced both milk and eggs in years past, but the business I have now lets me use my experience without having to invest big chunks of capital."

And, judging by his comments as Ted shows a visitor his young cattle and young birds, he enjoys the job!

VALLEY FARM

If you've ever driven east on Route 17 near Deposit, New York, you've seen a dairy farm next door to the big Celotex plant just south of town. It's owned and operated by Ronald Faigle... who has a milking herd of 75 cows (100 head in all).

There are 150 acres in the farm, practically all tillable river bottom. Ronald grew 80 acres of corn in 1970... filled three silos (16×50, 22×50, and 20×60), and still had 45 acres to pick.

He feeds each cow 50 pounds of corn silage, 20 of laylage, and 5 of hay each day. "I'd like to get rid of hay completely," he reports. He purchased 4500 bales last year.

The barn is 38×250 feet, equipped with comfort stalls. Ronald cleans the barn twice a day in winter so the gutter cleaner won't get overloaded... the barn is awfully long for the design strength of any cleaner!

There are three calf areas in the main barn... one for starting, and the other two holding calves sorted by age. Welded pipe forms the restraining sidewalls of the latter two pens, allowing necessary air movement so important in preventing respiratory diseases. Two heat lamps suspended over the "nursery" area help keep the wee ones from getting chilled.

Calves start on milk-replacer, get hay up until they're a year old. After that, corn silage and haylage are the only roughages fed young cattle.

Ronald has a pto-operated grinder-mixer, makes up a batch of feed every other day. — G.L.C.

CALF QUARTERS

On Route 80 just south of Edmeston (Otsego County), New York, are the broad acres owned by the John Van Vranken family. They milk 68 cows, and grow much of the feed for the herd.

In 1970, there were 75 acres of hay to be harvested three times here... and the first cutting was all off by June 12! It was cut for haylage, with second and third cuttings made into hay.

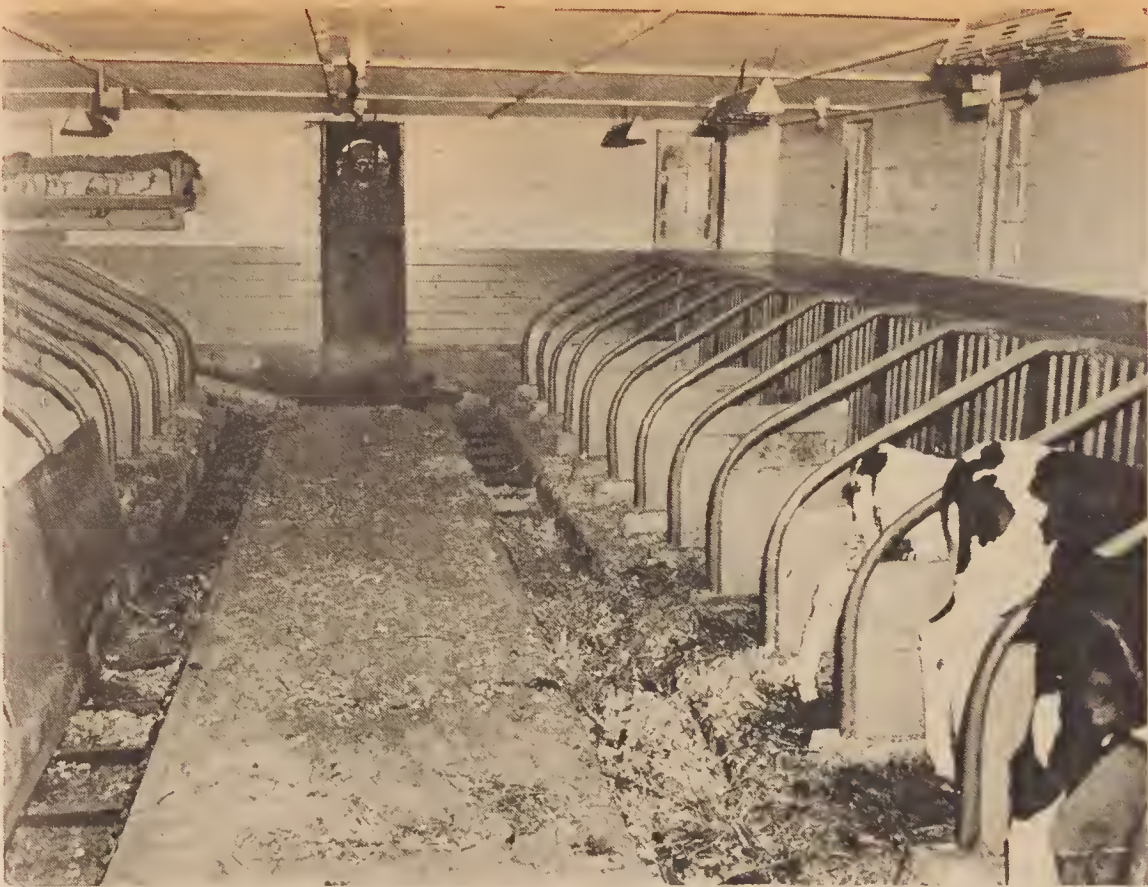
Corn was a good crop... filling two big corn cribs, as well as silos... including a 40×100-foot bunker. The ear-corn storage also has space above for home-grown oats, as well as purchased bulk feeds (hominy, distillers grains, etc.). The Van Vrankens have their own portable grinder-mixer for preparing their grain mix.

For years, John wanted better facilities for raising herd replacements... so recently he built an "L" on the main barn just for

(Continued on next page)



Ted Clark checks a Hart watering cup in house where he raises pullets. Chicks already in top cages will "spread out" into bottom ones.



New calf barn is not yet full, but it has plenty of room. Note innovation at far left for keeping a few hens for fresh eggs . . . cages over the gutter cleaner.

that purpose. There are 25 stalls in the calf barn, and a barn cleaner to handle manure. Six infrared electric heaters keep the temperature from falling below 40 degrees Fahrenheit. Walls and ceilings are insulated. This is a family who started out with less than nothing only 24 years ago . . . when their barn burned (on a different farm) after insurance had lapsed because of a misunderstanding. They started out at the bottom of the financial scale, but hundreds of gallons of sweat later they have a farm of which anyone could be proud! — G.L.C.

CALF STALLS

The Robson Brothers (Forrest and Floyd) of Westmoreland, New York, have a 100-cow herd . . . and start 30 calves a year toward becoming herd replacements. They use an innovative arrangement in a box stall . . . free-stalls for calves that are formed by zig-zagging sheets of one-half inch exterior plywood. The pattern formed looks from above like a giant saw-tooth. Above each stall is a heat lamp, each bulb having its own switch. Plywood panels are easily removable for cleaning the pen. The Robsons think that calves should be moved to different quarters after they reach two months of age . . . these stalls aren't big enough for them after that.

Over the years, Forrest and Floyd have enlarged their barn several times. During one such remodeling, they built box stalls to serve as calf pens in a corner of the cow stable. Thinking to prevent drafts on the calves, they put solid plywood sides all around one pen . . . and developed problems fast! The humidity of a cow stable is notorious . . . 100 cows give off enormous quantities of moisture. The solid sides prevented air flow, so the calves in the box stall developed respiratory infections. One side of the pen has now been opened up, and the health problems minimized. Calves here get a combination of antibiotics, administered orally, early in life as a routine treatment. During the stabling season, young calves also get a shot of vitamins A, D, and E. — G.L.C.

HYDRAULIC

Rodney Hess of Forestville, New York, welded a hydraulic cylinder on the lid of his tank-type manure spreader. Brackets were also welded on the lid in such a way that the cylinder can be removed by pulling pins . . . this way, the spreader can be opened manually when cleaning pens. The hydraulic cylinder holds the spreader lid open at varying heights so it can be emptied faster. And no getting on and off the tractor to get the job done!



Pen is divided in middle by a saw-tooth arrangement of plywood . . . providing four free stalls on each side.

For the Farm & Rural Home Bookshelf

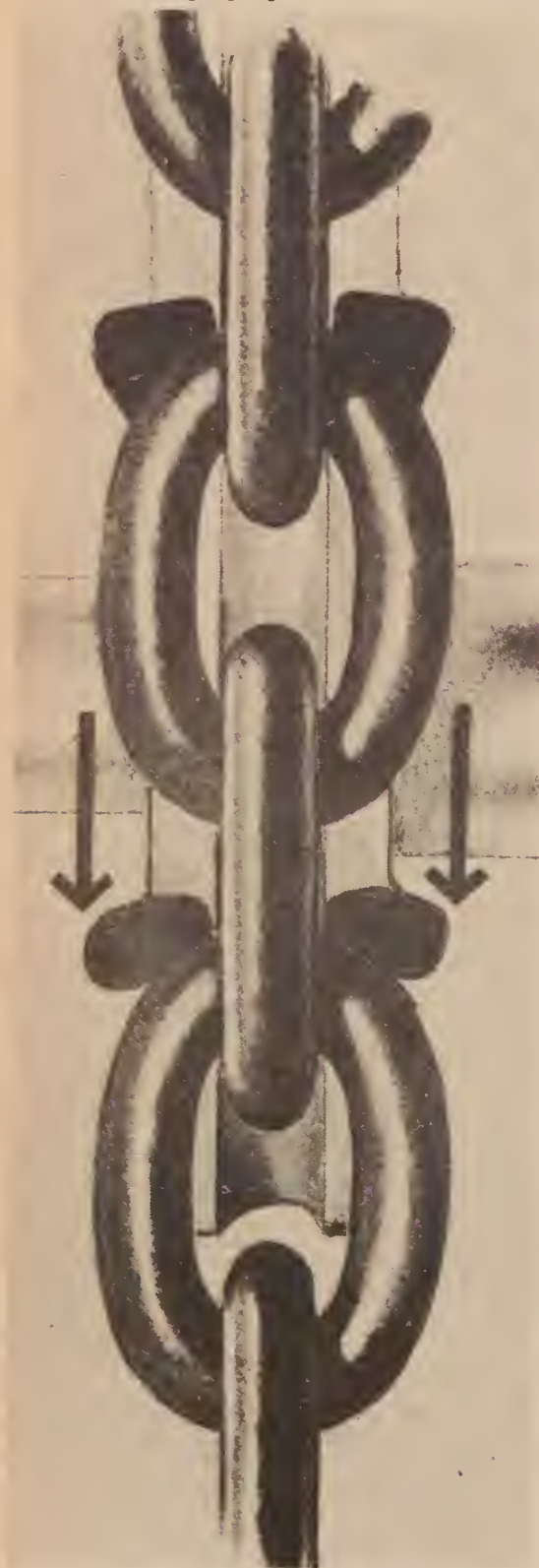
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Sprong Fruit Farm manager George Reithel (left) visits with Doug Sergeant about mites.



LITTLE MITES — BIG TROUBLE!

POTENTIALLY heavy infestations of European red mite are predicted for New York apple orchards this season.

Orchard experts advise that even growers who got good control with a single pre-bloom oil last year should take extra precautions this season. This means looking at your trees frequently, and spraying promptly when required.

Mite specialist Dr. S. E. Lienk at the Geneva Experiment Station explains it this way: "We saw a particularly heavy mite buildup late last season, then a relatively mild winter. As a result, we have an especially heavy egg carryover."

Buildup

Lienk points out that, ordinarily...even with a 98-percent kill in April or May...you can get a considerable buildup by July or August, especially if there are prolonged periods of hot weather.

"But with even higher egg populations to start out with, as we have this year, that two-percent survival adds up to a lot more mites," he said, "and that means trouble when you consider that mites can produce as many as seven or eight generations over a single season."

Good Eating

Another factor contributing to the mite problem here, according to Lienk, is increased tree nutrition. "Added nitrogen and other essential nutrients, for example, means more succulent growth which helps support higher mite populations and increase egg production," he said.

"What's more," Lienk points out, "we've seen a consistent trend in recent years for mite infestations to 'peak out' later in the season. The early-outbreak pattern remains the same, but maximum mite activity occurs later and continues at high levels well into August," he said. "This further underscores the need for careful orchard inspection through the season and prompt treatment with an approved miticide."

Field Advice

This advice is seconded by Doug Sergeant, an experienced apple grower in Wayne County. Sergeant gets a good look at a wide cross section of orchard problems through his association with Agchem Service Corporation in Sodus. During the season, he periodically field inspects some 50 to 60 orchards, and pro-

vides pest-control consultation.

"You can't take European red mite lightly," Sergeant emphasizes. "I've seen them move into an orchard where control measures were ineffective and cut production and fruit quality drastically in as little as a season or two.

"They do this primarily by sapping tree vigor. Research studies show that mites can cut the chlorophyll-producing capacity of the leaves by as much as 30 percent. And foliage must be vigorous and healthy to maintain a top-producing tree."

Thud!

Injured foliage also can encourage premature fruit drop. When this occurs, even stop-drop materials are ineffective, and picking season is shortened. This can produce an abundance of cull fruit.

"The key is hot weather," Sergeant stresses, "because there's an

(Continued on next page)

RECOMMENDED

At the time the publication "1971 Tree-Fruit Production Recommendations" was published by the NYS College of Agriculture, these materials were recommended for mite control for apples:

Acaralate
Delnav (trial basis)
Ethion
Kelthane
Morestan
Morocide
Omite
Parathion
Systox
Tedion
TEPP

Fundal and Galecron are new additions to the list... identical in their toxicant, but slightly different in formulation. Both are available as a water-soluble powder, or as emulsifiable concentrate.

Trithion is not on the recommended list in New York, but it is labeled for mite control... and some growers have used it successfully.

Remember that the pesticide situation changes from day to day, and that registrations of a particular pesticide may be canceled. Check with your county agent or spray-material supplier for last-minute information.

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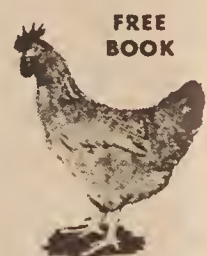
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established ratio between temperature and the speed of mite buildup. In cooler summer weather, mites may regenerate every 13 or 14 days, but given a 15 or 20 degree increase in temperature, a new generation can be produced in as little as 5 to 7 days!"

But there are many other variables influencing mite infestation, according to Sergeant. "Over the years, we see cycles of mite intensity ebb and flow . . . and there's no predicting precisely how they will act in any given season. Control, therefore, rests largely on maintaining a flexible two-way program: first, the pre-bloom oil spray in the spring. This is a preventive treatment to check or reduce the overwintering population.

"Second is periodic tree inspection. When mites show signs of recurring, we recommend spraying with one of the Extension-approved miticides, repeating the application in about seven days."

Does the Job

And, according to many growers who followed this program last season, it works.

One of these was Glen Champlin, who grows 75 acres of Northern Spy, Red Delicious, and other varieties in Wayne County. "Spys are highly vulnerable to mites," according to Champlin, "but I keep a pretty sharp eye on all my trees after the pre-bloom spray.

"Even if I apply a thorough pre-blossom spray plus a follow-up application of an insecticide for both aphids and trees, I've seen a heavy return buildup of mites.

"The last time this happened, we went to 'back-to-back' treatment to assure fast eradication. We applied Acaralate twice with 9 or 10 days between sprays. This got broad, thorough coverage of eggs, nymphs, as well as adults and it really took the wind out of what was a heavy mite attack," Champlain explained.

Fresh Market

Prompt, effective mite control is doubly important when the crop is grown almost wholly for the fresh market. A case in point is the Sprong Fruit Farm near Sodus, a widely-known orchard and roadside market that's been growing and selling fresh fruit since 1869.

"Mites are as inconsistent as they are dangerous," according to George Reithel, manager of the Sprong Orchards. "They vary from year to year, and sometimes even from one part of an orchard to another,"

Two seasons ago, for example, Reithel detected a serious infestation of European red mite in an 85-acre block of apples. "Some spots were

hit harder than others, but we had to treat fast," Reithel said. "We applied about 1½ pints of Acaralate per 100 gallons of dilute over the entire 65 acres."

Big Acreage

When a grower works large acreages, such as Roland Orbaker in Williamson, he has a lot at stake and usually diversifies in apple varieties as well as intended market. Orbaker owns and manages about 600 acres of bearing and non-bearing fruit trees. Of these, 350 acres are producing apple orchards which he splits 50-50 between the fresh and processing market.

"Apple production is just too unpredictable to risk putting all your eggs in one basket," Orbaker

says. "We've seen production range from approximately 26,000 crates to over 100,000 in just a span of two or three years. The main reason is weather and environment."

One way to reduce the risk factor, according to Orbaker, is effective control of orchard pests. "Our number one pest, of course is the European red mite," he said. "Three years ago we had so much of it, you could see the trees shake! We went through the orchards once with a miticide spray to knock them down, then mopped up with a second treatment 10 days later. Now we keep a close watch on all our orchards, especially in warmer weather."

Early detection and prompt treatment are the keys to good mite control.



Roland Orbaker has a lot of sprayer capacity to handle pesticides on his large fruit acreage.

Agway LPS bridges the protein gap

Agway LPS (Liquid Protein Supplement) helps to avoid the problem of protein deficiency, often the cause of less-than-optimum production in dairy herds. At the same time, LPS supplies the proper balance of phosphorus, vitamins and trace minerals—essential to health and condition.

LPS may be fed free-choice or top-dressed on hay. Many Northeastern dairymen are feeding LPS free-choice year round to assure adequate protein intake. When fed on hay of poor to average quality, LPS not only provides protein and phosphorus but also enhances the palatability of the feedstuff.

Whether you operate with loose housing, free stalls or stanchions, Agway can supply you with the proper equipment: the wheel feeder for free-choice feeding or the gravity feeder for top-dressing.

Heifers and dry cows benefit, too, from LPS feeding. Heifers get a good start toward maximum growth and top production, while dry cows—frequently underfed on protein—get this vital part of their diet.

LPS is available through most Agway Stores and Representatives. For complete information, contact your local Agway or Enterprise Salesman.

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AGWAY



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American Agriculturist, April, 1971



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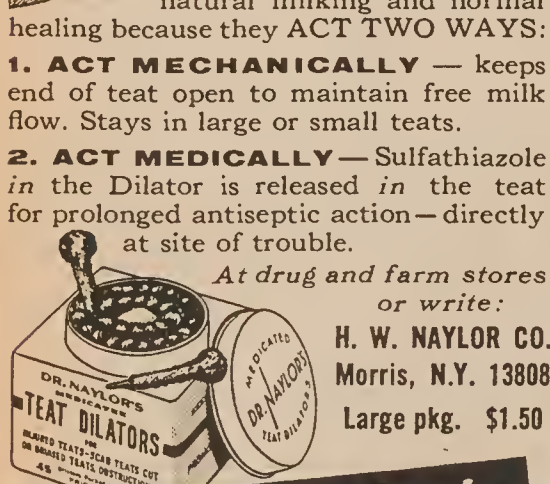
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HOLD THAT LIVESTOCK!

AGRIBUSINESS EGGS

AGWAY, Inc. has announced plans for joint participation by Agway and independent poultry producers in a 1.2 million-bird poultry complex within a 25-mile radius of Geneva, New York. A new company, called Gromark, Inc., would maintain a 300,000-bird "home farm" ... participating poultrymen would raise and house an additional 900,000 laying hens on their own farms.

Here are other features of the proposal:

1. Requirements for membership in Gromark include?

a) Poultryman with at least 30,000 layers, or plans to reach that goal within four years.

b) All feed purchased from Gromark.

c) Members must follow Gromark's management program.

d) Farm members must have place and program for manure disposal if new buildings are planned.

2. Investments are required from members:

a) Common stock at 10 cents per layer in the program.

b) One dollar per layer in subordinated debentures, payable at 25 cents per bird at the beginning of each of the first four years (first year starts July 1, 1971).

3. Gromark will become activated when farmers with 550,000 layers have committed themselves to the program ... and when financing has been finalized.

4. Eggs will be marketed by Agway's Poultry Products Department.

Reasons For

Visits with management people at Agway, and other businesses connected with the poultry industry, reveal these major reasons for the move:

1. Buyers for major food chains demand consistent high quality of eggs ... and sufficient volume from a single source of supply to serve large numbers of retail outlets. The need constantly increases for "small" poultrymen ... with anything under 100,000 birds ... to be hooked into some larger system that can more adequately meet the demands of the marketplace. Agway's Poultry Products Department is already buying eggs from outside the Northeast to fulfill its commitments to retailers, and would prefer to use northeastern eggs.

2. Environmental considerations have exploded into importance in recent years. Some experts see the wave of the future in the poultry industry as one where laying hens are housed in the new "low-smell," high-rise houses ... and amidst enough cropland area so manure can be recycled through a corn crop.

Having a feed company go into the egg-production business isn't new, although it isn't nearly as common in the Northeast as in the South and Midwest. The Inter County Farmers Cooperative at Woodridge (Sullivan County), New York, has 300,000 birds on its Mountain Pride Farms.

Inter County has been in the feed business since 1935 ... and it caught some flak from members

when it entered directly into the business of egg production. However, general manager Al Cohen reports that Mountain Pride has paid off for members in terms of enhancing top efficiency in the feed mill ... and has helped hold down feed costs to members of the co-op.

Although plans once called for Mountain Pride to go to 900,000 birds, resistance on the part of non-farm neighbors has changed those plans. Unless the problems of odor and waste disposal can be solved to the satisfaction of most people concerned, expansion will remain stymied.

Hatchery

Babcock Industries, Inc. ... a worldwide hatchery organization headquartered at Ithaca, New York ... is involved in a massive construction program at its Babcock Poultry Farm in the Ithaca area. Some poultrymen have gotten the mistaken idea that Babcock is also going into the production of market eggs, but company spokesmen deny this. All new buildings housing birds, they report, are breeder or research facilities.

On Wadsworth Road north of Wolcott (Wayne County), New York, is the poultry farm operated by Wegman's Food Markets, Inc. ... headquartered at Rochester, New York. Eggs produced here are sold through the supermarkets operated by the company in several Upstate New York cities, and to the institutional market through Wegman Food Services, Inc.

There are seven laying houses, each measuring 42x500 feet and housing 30,000 birds. Down the road a mile are two more buildings for rearing pullets, each also with a capacity of 30,000.

Growth Plans

Plans call for eventually having 12 buildings holding layers ... 360,000 birds in all. The timing for completion of the complex is geared to the growth in need for eggs by the chain. Two or three additional stores are generally added each year. Present egg grading and packing facilities have a capacity of 72,000 dozen per 40-hour week, according to assistant general manager Milton Wadsworth.

It's also not exactly new to have grocery chains enter the egg-production business. The Jewel and Kroger chains are doing this in the Midwest, as is the Sentry Markets chain in Wisconsin.

It's been apparent for some time that the production of eggs has already become biological manufacturing. Large amounts of capital and sharp management are essential ingredients of the successful operation ... and the availability of satisfactory markets has become a major problem to some poultrymen.

Compared to the raising of fruit, or the production of milk, the poultry industry has always been a fast mover. Recent developments indicate that 1971 is no exception to the rule in the Northeast! — G.L.C.

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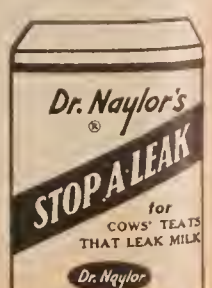
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H. W. Naylor Co., Morris, N. Y. 13808



American Agriculturist, April, 1971

LIVESTOCK



Goat Show — The New York State Goat Club will hold their third annual Buck and Kid Show on May 16 at the fairgrounds in Altamont, New York. The show will begin promptly at 9:30 a.m. Mrs. Nancy Brooks of Slaterville, Rhode Island, will be the judge.

All age bucks are eligible, as well as does up to 24 months that have not yet freshened. All five dairy goat breeds . . . Alpine, La Mancha, Nubian, Saanen and Toggenberg . . . will be shown, as well as Recorded Grades.

For show entries or other information, please write to the show chairman: Edward Dochniak, R.D. #2, Elnora, New York 12065.

The public is invited. Admission is free.

Meat Animals — One of the largest swine operations (1,500 hogs) in the Northeast is at the Karl Ehmer Stock Farm on Noxon Road, near LaGrangeville, New York. The setup includes everything from farrowing house through slaughter facilities.

Highly-mechanized feed handling arrangements are used to minimize labor costs. A large acreage of home-grown corn is produced, dried at the premises, and fed to meat animals.

The last New York State Swine Field Day was held here; visitors were impressed with the efficiency of animal-handling facilities.

Visits to the farm should be cleared with the owner, or with Max Heflich, manager of the swine operation.

Lockjaw — Don't ignore small puncture wounds on horses, warns Dr. James Wadsworth, Extension animal pathologist at the University of Vermont.

Tetanus (lockjaw) bacteria enter the body through cuts and abrasions of the skin or mucous membranes. Puncture wounds, or contaminated and bruised wounds, are especially serious.

All warm-blooded animals are susceptible to tetanus, but horses and sheep are especially so. Cattle seem to be quite resistant.

Horses showing signs of lockjaw (stiffness, difficulty in moving and eating) can be treated with antibiotics and tranquilizers.

Don't wait until your horse is injured. Have your veterinarian immunize him against tetanus.

Blondes — Plans for the importation of semen from France's newest beef breed, Blonde d'Aquitaine (blond dock-ee-tan), for progeny tests under beef cattle conditions in the U. S. have been announced by Big Beef Hybrids of Stillwater, Minnesota. Shipments are the result of an unusual French-American cooperative research agreement. Testing will be conducted under strict quarantine by the USDA Animal Disease Labo-

ratory at Plum Island, New York.

Blonde semen will be shipped to the U. S. in the thin plastic straws which are replacing the glass ampule in artificial insemination procedures.

Recycling Waste — Animal nutritionists at Penn State are successfully feeding processed poultry waste to beef cattle. The raw waste is given a thorough heat treatment with steam or dry heat, then ground into small particles for mixing into the cattle ration as a nutrient source.

As a cattle feed, the processed waste has been found to equal conventional sources of nitrogen, and to produce similar rates of gain and feed efficiencies. A taste panel has judged that steaks from steers fed poultry waste were just as acceptable

as steaks from steers fed urea or soybean meal supplement.

Next step will be to determine conclusively that the poultry waste, when fed, will not cause an accumulation of drugs in the animals' tissues.

Piggy Back-Biters — It appears that pigs under stress take on some all-too-human traits and become rude and quarrelsome. And like humans, they seem to find that chewing on something has a calming effect. For pigs, a curly tail attached to another pig is a hard-to-resist, high-protein snack.

From the gnawed-on porker's viewpoint, though, this isn't funny, for it not only reduces his

beauty . . . already scarce and dubious . . . but may also produce infection which leads to weight loss and, in some, cases, death. Pigs, unlike most humans, are not interested in losing weight! "Tail-Guard," a specially formulated compound developed by Rhodia Inc. to stop tail-biting among pigs, is now available in aerosol form. To apply the new aerosol, simply squirt it at the pig's derriere for a second or two, and no more tail munchin'.

For full information about "Tail-Guard," both the aerosol and the original concentrate form, write to: Jim Humsey, Rhodia Inc., 600 Madison Avenue, New York, New York 10022.



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We sell, install, and service a wide selection of power choring products: silage distributor-unloaders (Volumatic II

and Big Jim), cattle feeders (Jumbo and Volume-Belt), barn cleaners (chain-type and shuttle-stroke), All-Season Ventilation Systems and a complete line of barn equipment.

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MORE OPTIMISTIC

by Amos Kirby
New Jersey Editor

THE southern corn blight situation, as summed up by James Justion at the New Jersey College of Agriculture, is a bit brighter than it appeared last fall.

To date, there is no evidence that the blight spores will overwinter in New Jersey and further north. There is also evidence that a six-week drought in mid-summer

did more damage to New Jersey corn than the blight.

The possibility of another infestation will largely depend on variables in the weather. This includes a consistent flow of southerly winds blowing up the coast and into New England.

If there is such a flow of southerly winds in August, and if they are

accompanied by high humidity, the blight could reach the Northeast. There is one blocking factor. If there should be an area to the south that has hot and dry weather, the blight could be stopped at that point.

Agronomists recommend plowing deep to bury all corn plant debris that might be a source of infection... and plant as early as possible to minimize damage by the disease if it does come our way again in '71.

SOYBEANS

Soybeans rank high among alternate crops to grow in many parts of New Jersey if one prefers a mechanized crop to those that require large amounts of hired labor.

Soybeans have never been known

to be a crop with a high cash value, but a breakthrough on yields appears about to take place. The average of 20-30 bushels is likely to be a thing of the past. Many growers are now harvesting 50-60 bushels per acre, and some have even exceeded 100 bushels per acre.

These yields have been secured on good land, with good weed and pest control, and with about the same yardstick used in growing 100-125 bushels of corn per acre.

The corn earworm is one of the most destructive soybean pests. One earworm will destroy about 20 pods if allowed to feed from hatching to pupation. Seven pods per row-foot is equal to one bushel per acre. One worm per row-foot reduces yields by three bushels per acre.

Many growers have found soybeans an excellent double crop, following barley where soil and weather have been favorable.

The Universities of New Jersey, Delaware and Maryland have published a helpful pamphlet on fertilizer requirements for about all of the basic crops grown in this tri-state area, including soybeans. Ask your county agent for information on obtaining one.

IRRIGATION

In New Jersey, most growers of white potatoes have irrigation equipment available if needed.

All lettuce growers use it if additional water is needed. Tomato growers have found irrigation pays up to mid-July.

Peach growers in dry seasons have profited by irrigation, and many apple growers have had encouraging results.

W. T. McAllister, Extension economist in Delaware, reports that the total cost of irrigation per acre is approximately \$30-\$35 an acre for the center-pivot and moving-gun systems. The figure includes all fixed costs and operating costs to apply six inches of water.

PHOSPHORUS OVERRATED

There is a possibility that phosphorus as a polluter of streams may follow the mercury-in-tuna scare of recent months. However, tests conducted by the Pennsylvania Agricultural Experiment Station on four ponds in eastern Pennsylvania do not support the idea that phosphorus is the polluter that it has been pictured.

These tests show that algae grew in some ponds with a phosphorus concentration well below the supposedly critical level of 15 parts per billion, while in other the algae did not grow in water having a concentration far above that level. This indicates that other factors besides phosphates lead to the growth of algae in streams and lakes.

DORMANT PEACHES

There is renewed interest among South Jersey peach growers in whitewashing tree trunks to keep the trees dormant until danger of the bark-freezing that causes winter injury is past.

Spraying a concentrated white-
(Continued on page 36)



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Not bad for just \$3.50 to \$7.00 an acre broadcast, depending on

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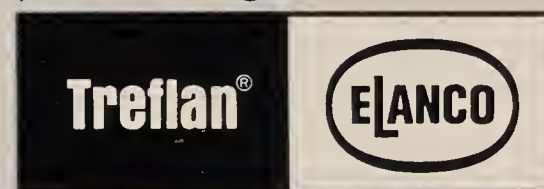
We'll even help you whip the weeds Treflan doesn't get. Like ragweed or nightshade. Operation Headstart is one way.

Simply apply Treflan a few weeks before you plant and mix it into the soil once. Then at planting, you mix it in the second time, taking out early-germinating resistant weeds, which usually don't make it back. A second approach to resistant weed control is a tank mix of Treflan and Eptam®. This provides a more effective, wider

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Kirby

(Continued from page 34)

wash on the side of the tree that is exposed to the rays of the sun in late February and early March has kept the bark temperature down by 10-20 degrees, thus delaying the flow of sap. Late freezes often result in the sap freezing and breaking the bark. The whitewash reflects the heat from the sun, thus keeping the tree-trunk temperature on an even basis.

BRUSH BURNING

If present regulations are not changed, orchardists may not be permitted to burn trimmings and brush in 1972.

This is a part of the clean-air program now in effect in New Jersey. There are two alternatives to burning: set aside an area as a brush dump . . . buy or lease an expensive piece of equipment that shreds the brush.

INCENTIVE PAYMENTS

W. T. McAllister, agricultural economist at the University of Delaware, suggests that incentive payments to qualified workers might help to hold employees on farms.

He suggests a cash incentive based on added output that is above current production levels. The incentive should be in cash, and it will be more effective if paid from time to time, rather than as a bonus at the end of the season.

PREFER DANDELIONS

Honey bees prefer dandelion blossoms to fruit blossoms, especially the apple, report experts from the New Jersey Agricultural College.

A recommendation for 1971 is to destroy the dandelion this spring before the fruit trees come in bloom. Spraying dandelions with weed-killers forces the bees to seek pollen from the trees. If one is interested in honey production, the dandelion is an excellent source . . . but for good fruit pollination, get rid of the dandelions!

ASPARAGUS KNIFE

A new type of asparagus knife with a replaceable blade has shown up in farm supply houses in New Jersey. Instead of the round handle, as on most knives, this one has a handle similar to a pistol-grip that makes it easier to adjust to the hand and is easier to use in cutting.

The replaceable blade, bolted to the handle with two stove bolts, costs less than one-half of the standard asparagus knife.

DAIRY SURVEY

A South Jersey agricultural agent (Ivan Crouse, Salem County) is developing new yardsticks for determining if dairymen are making a profit in producing milk.

This measuring system is based on the 1970 income tax reports that dairymen filed with the Internal Revenue Service.

Questionnaires were sent to all milk producers in Salem, Cumberland and Gloucester Counties. Ivan is seeking facts on dairy operations in order to develop a down-to-earth approach on how to build more profitable dairy businesses.



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EMPIRE FARM DAYS

Empire Farm Days, an annual event which has grown into the largest machinery demonstration and exhibit in the Northeast, will be held this year on a farm owned by John Halpin and Sons of Henrietta, New York.

The Halpins... John Sr. and his sons John, Theodore, and Robert, as well as daughter Elizabeth... operate 3600 acres in the area south of Rochester, New York. The roster of crops includes such acreages as 600 of snap beans, 535 of sweet corn, 900 of field corn, etc. To keep busy, they also operate two John Deere equipment dealerships... one at Henrietta, and the other near Hall in Ontario County.

Caledonia

The Field Day will be held at what the Halpins call their Caledonia Farm... consisting of 1040 acres not far from the village of Caledonia in Livingston County.

Routes 5 and 20 go through Avon together, then split just west of that village. A traveler proceeding west from that intersection will be on the road to Empire Field Days '71 by taking the first road to the right. The road was once called the Canawaugus Road, now officially the West River Road.

One field contains 100 acres on the Caledonia Farm... it is here that exhibits will be set up, machinery demonstrated, and parking space provided. Soils are gravelly loams that provide fine plowing conditions.

Put the dates for Empire Farm Days on your calendar now... Tuesday, August 10 through Thursday, August 12!

BUNNY BITS

"Modern Rabbit Raising" is a 36-minute, 35 mm filmstrip in color with accompanying sound on the commercial production and management of rabbits. Produced by Albers Milling Division of the Carnation Company, it is available to breeders, rabbit associations and 4-H Clubs. They may request showings from: Dept. AA, Carnation Albers Company, 800 West 47th Street, Kansas City, Missouri, 64112.

Also available are record forms necessary for normal rabbitry functions. Daily cards, hutch record cards for does, stud cards, and monthly/yearly office summation sheets will be provided on request by Albers Milling Company. In addition, two research books are available... "Raising Rabbits," and "Commercial Rabbit Raising."

NEPPCO-PIMCO-IPIE

The Northeastern Poultry Producers Council (NEPPCO) and the Poultry Industry Manufacturers' Council (PIMCO) have both decided to discontinue sponsorship of the International Poultry Industry Exposition (yep, you guessed it... IPIE).

This year IPIE had been scheduled for Cincinnati, Ohio on October 11-14. Instead, NEPPCO is planning a "NEPPCON '71" convention-exposition in the fall, to take place somewhere in the Northeast.

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FARM BARGAINING

I am very disturbed that our leaders in agriculture . . . including yourself . . . seem to be advocating more and more the labor union approach to obtaining better farm prices.

Why can't you realize that no businessman sets his own price unless he too can control the total supply (monopoly)? Even the giant General Motors Corporation can't set its own prices. If General Motors puts a too-high price tag on its cars, they won't sell. People will buy Fords and Volkswagens!

General Motors does not control the total supply, and therefore must let the market decide what it can charge for autos . . . just as we farmers must let the market decide what we receive for our products.

I'm sure you wouldn't advocate a policy that would allow the businessmen in the auto industry to gain control over total supply so that they could charge what they darn well please. Why, then, are you and other agricultural leaders suggesting that we businessmen in farming try to gain control over our supply and then demand higher prices through a bargaining association?

Union Tactic

What you suggest is a labor union tactic. It should be obvious by now that this monopoly power held by unions over the supply of labor has done much to foul up our economy. Sure, the people in labor unions do well . . . but how about the rest of us Americans who have to pay the inflated prices that they have created? If we follow your suggestion, pretty soon this whole country will be organized with everyone demanding more for doing less work. What will happen to our standard of living then?

For us farmers to gain control over supply, coercion must be used to force all farmers in line. I do not relish a society where we are told how much to produce, where to market, and are required to join a bargaining association (closed shop).

Isn't it our individual freedom we cherish most of all as farmers? How can we give up this freedom so easily for a few more dollars in the pocketbook when so many have died to keep us free?

When are we going to decide to act like businessmen again by turning our thoughts back to serving the consumer instead of trying to find ways to demand a better price from her? The farmer who stays up with new methods and efficiencies (such as advocated in your magazine, and by the Extension Service) is the one who best serves the consumer, and both the farmer and the consumer profit. The farmer who does a lot of crying about what a poor deal we farmers are getting . . . and insists that we must bargain for our God-given right to a comfortable life . . . is not my idea of a businessman.

This great nation was built by
(Continued on page 39)

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Sunrise Tool Service — West Babylon, L. I.
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Blue Point L/M — Blue Point
Paradise Lake Sls. & Svce. — Bolivar
Brant Machine — Brant
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Alcan Machinery & Equip. Co. — Corona
John Lawrence Garage — Dansville
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United Rent All — East Meadow
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Stillwell Supply — Elmsford
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American Rental — Garden City
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Dependable Tree Service — Hurley
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Walter Kohl — Lockport
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Bargaining

(Continued from page 38)

hard work and sacrifice, not bargaining organizations! Let's quit crying the blues, roll up our sleeves, forget the idea of demanding and start earning a profit by good management and hard work! — George Muller, dairyman, Clifton Springs, New York.

LAND CONDEMNATION

I believe that the State of New York could materially assist landowners in condemnation cases by dividing total remuneration into a direct payment, and a severance (or consequential damage) payment.

Assume a state highway is laid out across a farm, cutting the farm diagonally, taking 10 acres of land for the highway and leaving 40 acres cut off from direct access to the remainder of the farm. Assume that the State makes an award of \$10,000.

The value of the 10 acres is judged to be \$2,500. The total award is made with the realization that the value of the farm has been reduced because of fractionalization of remaining landholding. But the State refuses to separate the award into \$2,500 direct damages and \$7,500 consequential or severance damages.

Lump Sum

In the above case, Internal Revenue demands that the entire proceeds of \$10,000 be reported as income from sale at the time of the award. If, on the other hand, the State would signify in writing that the award was in two parts, designating \$7,500 as consequential damages, the farmer as a taxpayer treats the two parts of the award differently.

He must pay the tax immediately on the \$2,500 for the "sale of" the 10 acres for the highway. The \$7,500 in consequential damages is used first to reduce the unrecovered cost (adjusted tax basis) of the farmer's remaining land. If that figure is \$7,500 or more, he reports no income from the consequential damages at the time of the award.

In other words, he uses the consequential damage award to reduce the unrecovered cost of remaining land to or towards zero. If the award is greater than the unrecovered cost, the excess must be reported as gain at the time of the award.

Benefits

The privilege of postponing the reporting of the consequential damage award will show up as gain at final disposition of the remaining land, but in the meantime the taxpayer usually benefits materially from the postponement. First, he benefits because it avoids reporting total award in one tax year and thus avoids a higher tax bracket, and second because postponing income tax gives the taxpayer the use of money in the interim.

If the State would agree to allocating the award in such cases between direct and consequential damages, there would be no additional cost to the State in terms of land acquisition.

I believe that the procedure of allocating the award is much more equitable.

Professor Robert Smith, NYS College of Agriculture at Cornell University.



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NAPLES ON THE GULF

Dollar Guide



MAREK'S DISEASE vaccine is being produced by several companies under license from the USDA . . . Merck and Co., Salsbury Laboratories, Sterling Drugs. Babcock Poultry Farm is producing it under NYS license (see page 2).

Vaccine creates major new dimensions in lowered mortality, and increased production from reduced stress.

BOSTON REGIONAL ORDER will be new name of Mass.-R.I.-N.H. federal milk marketing order. USDA recommends order amendment that will change name and enlarge area covered.

SIGNUP DEADLINE for federal farm programs is April 9. Check with your Agricultural Stabilization and Conservation Office (ASCS) for details.

ACP is now **REAP** (Rural Environmental Assistance Program). Nearly \$10 million has been allocated to 9 states of Northeast. Lower priority has been assigned to practices benefitting individual farm . . . higher priority to public-benefit programs of water-pollution control, tree planting, long-range conservation practices.

TOUGH TO GET STARTED in farming? University of Wisconsin reports that the young family trying to get a toehold in farming must get control of huge amounts of capital . . . about \$16 for every dollar to be earned in labor income. For very modest goal of \$6,000 labor income, you need to control about \$100,000 in capital.

RED KIDNEY BEAN supplies are short; resulting high prices will encourage a boost in acreage planted to reds in '71. However, world production of all dry beans was up 11 percent in 1970 over '69.

DON'T FEED TREATED SEED! Captan is as illegal to feed as mercury. Food and Drug Administration reports, "Farmers offering animals fed with treated grain for slaughter may be held criminally responsible."

EGG CLEARING HOUSE, a facility for the public purchase and sale of shell eggs, is in planning stage. Phillip Alampi, chairman of National Egg Pricing System Study Committee, looks to the facility as a major indicator of the supply-demand situation. Operations are to begin at the earliest possible date.

For price information right now, USDA's poultry reports may be heard by dialing 201-645-3369 (Newark, N.J.). Report is updated at least twice each day.

BUYING MACHINERY? If interest rates have dropped locally, you'll probably do better to buy now, rather than wait. The long-range prospects are for continued increases in equipment costs in '71.

LOWER ELECTRIC RATES to farmers as they put more juice to use. Average price paid by farmers for electricity is down more than 1/4 since 1950. The cost per kilowatt hour goes down as the use increases.

HIGH SILAGE RATION can cause energy-protein imbalance. Test it yourself . . . feed 1 1/2 to 2 pounds of protein concentrate per cow per day. If production increases within 10 days, there's strong indication that you should increase the protein content of your grain ration.

NATIONAL EGG PRODUCT INSPECTION ACT becomes effective for egg products (liquid, frozen and dried) on June 30. After that there will be enforced egg quality standards throughout the country . . . with provisions covering shell eggs in effect a year later. By July of 1972, all state regulations must agree with the federal grade and weight standards.

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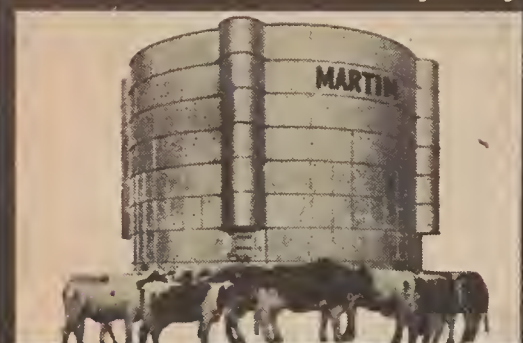
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American Agriculturist, April, 1971



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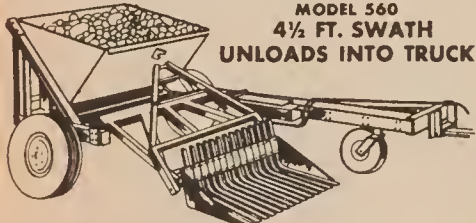
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A CONVERTED BELIEVER



Remember that nostalgic poem by Samuel Woodworth, entitled "The Old Oaken Bucket," extolling the wondrous taste of well water? Part of it went like this:

"That moss-covered bucket I hailed as a treasure,
For often at noon, when returned from the field,
I found it the source of an exquisite pleasure,
The purest and sweetest that nature can yield."

Time moves on, and now the fashionable activity across the land is to decry people being born, to wear gas masks to dramatize air pollution, and to "dialogue" endlessly about the pollution of our environment. Sure enough, the poem about the oaken bucket has been rewritten (by that famous author, Anonymous):

THE OLD OAKEN BUCKET (As censored by The Board of Health)

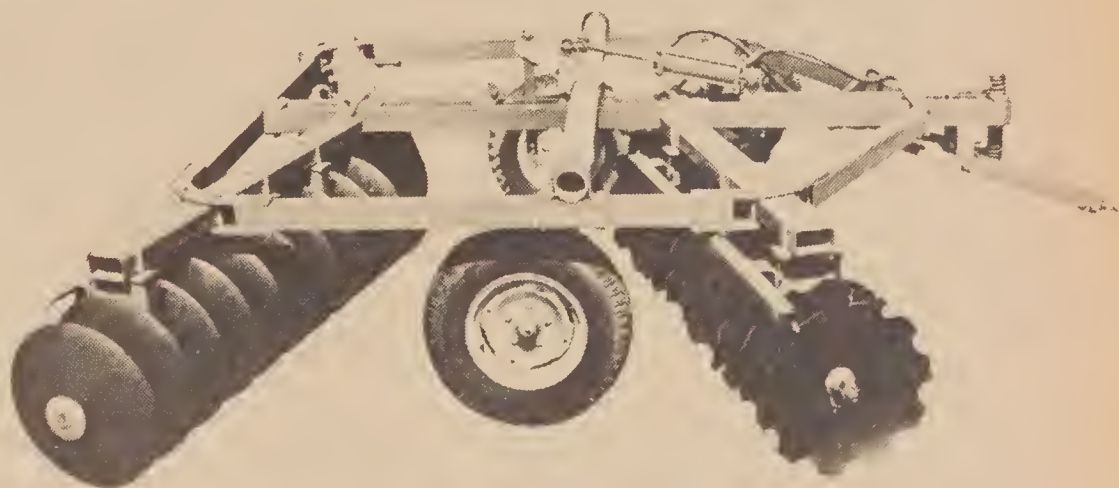
With what anguish of mind I remember my childhood
Recalled in the light of knowledge since gained,
The malarious farm, the wet, fungus-grown wildwood,
The chills then contracted that since have remained;
The scum-covered duck-pond, the pigsty close by it,
The ditch where the sour-smelling house drainage fell,
The damp, shaded dwelling, the foul barnyard nigh it—
But worse than all else was that terrible well,
And the old oaken bucket, the mold-crusted bucket,
The moss-covered bucket that hung in the well.

Just think of it! Moss on the vessel that lifted
The water I drank in the days called to mind,
Ere I knew what professors and scientists gifted
In the waters of wells by analysis find;
The rotting wood-fiber, the oxide of iron,
The algae, the frog of unusual size,
The water as clear as the verses of Byron,
Are things I remember with tears in my eyes.
Oh, had I but realized in time to avoid them
The dangers that lurked in that pestilent draft,
I'd have tested for organic germs and destroyed them
With potassic permanganate ere I had quaffed.
Or perchance I'd have boiled it, and afterward strained it
Through filters of charcoal and gravel combined;
Or, after distilling, condensed and regained it
In potable form with its filth left behind.

How little I knew of the enteric fever
Which lurked in the water I ventured to drink;
But since I've become a devoted believer
In the teachings of science, I shudder to think.
And now, far removed from the scenes I'm describing,
The story of warning to others I tell,
As memory reverts to my youthful imbibing
And I gag at the thought of that horrible well,
And the old oaken bucket, the fungus-grown bucket—
In fact, the slop bucket—that hung in the well.



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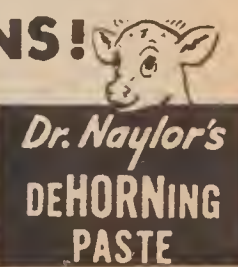
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So You've Always Wanted to Paint

(Part Two)

by Dorothy Welty Thomas



Now that you've done a still life painting, you may want to try your hand at a landscape. This is a good hobby for any time of year, but especially nice in the warmer months when you can comfortably work out-of-doors.

There are several ways to get started. Many beginners like to copy post cards and other prints, but a more satisfying way is to compose the picture yourself from a sketch. You can "make it up," or you can sketch from nature, eliminating what you do not wish to have in the picture.

Composition

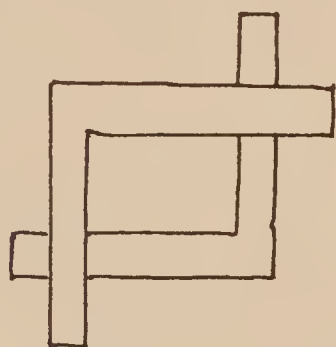
However you work, you need to consider composition, the design or arrangement of shapes in your picture. Most landscapes have a horizon where land and sky meet. Do not place this in the exact center; two-fifths and three-fifths is a good division of space.

Never place anything in exact center of a landscape. Balance your picture by placing unlike things of equal interest on opposite sides of the picture. Use the teeter-totter theory, large objects nearer the center and smaller ones out farther. Of course, these are simplified directions, and you will have to use your judgment as to what looks well.

A good exercise in composition is to cut out some trees, a house, some clouds, a road, etc., and then move them around on a background sheet for good arrangement. Let some objects overlap others; this suggests distance between them. Far things should be higher up in the picture and smaller than similar objects in the foreground. Study some paintings or photographs that you like, for you can learn much this way.

Finders

When you go out-of-doors to sketch, you may want to use a



finder. This consists of two L-shaped pieces of paper put together in the manner shown in the drawing. Move them around until you see a good composition

through the hole. Try not to put too much in your picture.

Setting the Palette

After you have an outline drawing made with charcoal on canvas board, you are ready to set your palette. It depends on the time of year what colors you need.

Six basic colors you can use in all seasons are Van Dyke brown, burnt sienna, yellow ochre, ultramarine blue, Payne's gray and white. Others you may want for spring, summer and autumn scenes are Windsor green, lemon yellow, cadmium yellow, cadmium orange and alizarin crimson.

You may not need all those listed, and you may need more. For instance, it depends on whether the autumn scene you are painting is a riot of color or a subdued color scheme. You can mix some colors; in fact, you will want to modify nearly all the stronger colors as they come from the tubes. Set your palette with the colors you think you will need, always including white. The sky is usually a lot more white than blue.

Small sketches from which larger ones are made are sometimes called thumbnail sketches. It may be a good idea to make two or three of these and vary

the arrangement. Make the skyline high in one, lower in another and change position of trees, houses and road for different effects. Choose the one you like best to enlarge.

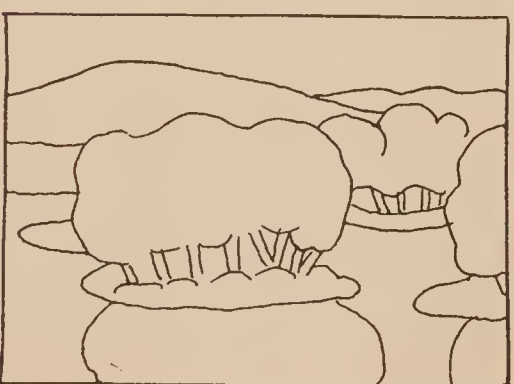
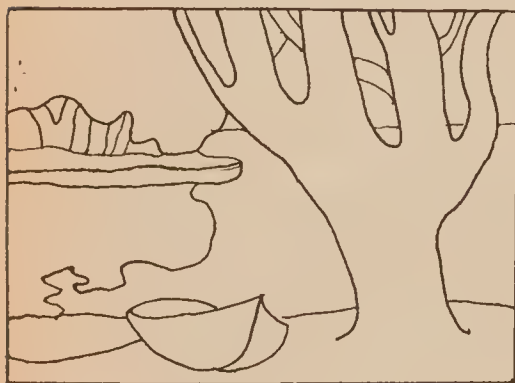
Another good idea for starting a new oil painting is to take a small box of watercolors and a sketch pad in the car with you and make a small sketch in color of something that appeals to you. Then prop the sketch up near your easel when you get home and work from it. Water colors are cleaner to use in the car and quicker than oils.

Painting

Begin with the larger areas first, sky for instance. You may want to paint twigs over the sky. You will need brushes of two or three sizes. A medium-sized flat one and a liner are necessary. More flat ones makes it unnecessary to clean your brush so often. Have both a small cup of medium (half turpentine and half linseed oil) and one of pure turpentine. Thin your paint with the medium and wash your brush in the turpentine.

Try to vary shades of green adjacent to each other and work variation in all your foliage painting. There are hundreds of shades of green. Don't try to paint individual leaves. Gray some of the greens and leave some bright to pep up your picture. Usually sunlight will produce a yellow-green. Add red, brown or black to soften or darken a green. Blue may darken it too much or change the color.

Don't be ashamed of your first attempt. Every artist painted a first picture! One virtue of oil painting is its flexibility. You can paint over it, or scrape it off with a palette knife and try again. Sometimes it is better to leave a picture and start a new one, so you don't get bored working on the same one too long. Each painting is an adventure in colors and shapes.



Garden Talk

by Katy and George Abraham

Water Witching Again

Recently we told our friends we couldn't explain the phenomenon called "water witching" or "divination" and asked for reader comments. As a result, we received 53 letters from our readers. Of these, 51 said that water witching is a real science.

Many told us that water witching has been used to find not only water but also metals, oil and other deposits. One letter went, "A few years ago our neighbor built a cesspool. In a short time he noticed soap bubbles on the water coming from the kitchen faucet. I checked the spot with a forked twig and discovered the stream of water was directly underneath the cesspool area. The neighbor installed a septic tank some distance away and had no further trouble."

Another reader tells us he locates tiles, septic tanks, seepage beds and underground water sources. The explanation as to how it works? Here's one we received — "The natural flow of electrons in an electromagnetic field uses the body as a traveling agent."

Old-Fashioned Apples

A good many of us are hankering to sink our teeth into an old-fashioned apple, and if J. E. Miller Nurseries, Inc., of Canandaigua, N. Y., has anything to say about it, many of these old favorites will be planted in more back yards.

Their biggest seller is the Pound Sweet (also called Pumpkin Sweet). Snow Apple (Fameuse) is another good one. They also list Golden Russet (what heavenly cider it makes!), Summer Rambo, Cox Orange Pippin, Chenango Strawberry and Spitzenburg. Their trees are on dwarf rootstocks. Remember, one dwarf apple tree in the back yard produces enough oxygen for four people.

Why did many of the fine old varieties disappear? It was probably because they were suitable only for home planting. They had to make way for modern varieties which must have the following characteristics: productivity, attractiveness, ease of handling, disease resistance, good keeping qualities, dual usefulness for dessert and processing.

Home Grown Geraniums

How are your geraniums doing? Will they be nice and husky by Memorial Day? If the plants have a good green color now, they'll be ideal for planting by May 30. Tall, leggy plants should be pinched back to induce bushiness.

Yellowed leaves mean over-watering or poor drainage, lack of light, a shortage of nitrogen plant food, or overcrowding. Geraniums like ample light (the brightest window you have) and plenty of room to stretch. Some people grow their geraniums on the dry side, hoping they'll flower earlier. Actually, a dry soil will delay blooming, so give your plants a uniform supply of moisture at all times. Feed them a liquid plant food such as 23-19-17 or a similar analysis. Dry

fertilizers are likely to burn the roots, so use them sparingly.

Rust Streaks in Lettuce

Several AA readers have asked us what causes those brown streaks in head lettuce they purchase. We took up this matter with the Western Iceberg Lettuce Co., Inc., in California, and they tell us that although the actual cause is unknown, there are a number of factors which contribute to or enhance the russetting.

It is known that hard, heavy, over-mature heads of lettuce are more likely to russet internally than the springier, perfectly-matured heads. Caryl Saunders, Director of Public Relations for Western Iceberg Lettuce, recommends that consumers buy the lighter weight heads for that reason. She suggests buying those heads which have a little "give" to them when squeezed. These heads will have the added advantage of being sweeter, more tender, and without the bitter over-developed core present in the hard heads.

Improper refrigeration during transit tends to increase the likelihood of russetting. The way it is handled in the store makes a big difference too. Lettuce is highly perishable and for best condition should always be kept at a temperature of 34 degrees. As the temperature rises, deterioration of the lettuce speeds up at an ever increasing rate, and russet spots are more likely to appear.

Do not store lettuce in close proximity to such items as bananas, apples, or other fruits which give off ethylene gas during the normal ripening process. The Western Iceberg Lettuce people recommend selecting the "springy" heads, coring and rinsing, then draining the head thoroughly and refrigerating in crisper or plastic bags.

Incidentally, if you want to grow a good lettuce in the home garden, try **Matchless**, also called Deer Tongue. This is an old timer, and it's hard to beat for taste. A good modern variety is **Buttercrunch**, famous for its large broad, dark green, crunchy and buttery leaves. It stands the summer heat for a long time without going to seed (called "bolting"). We also like this lettuce because the smooth leaves are easy to wash.

Summer Bibb is another good one, being an improvement on the well-known Bibb lettuce. Regular Bibbs go to seed before being really developed, but Summer Bibb stands up much longer.

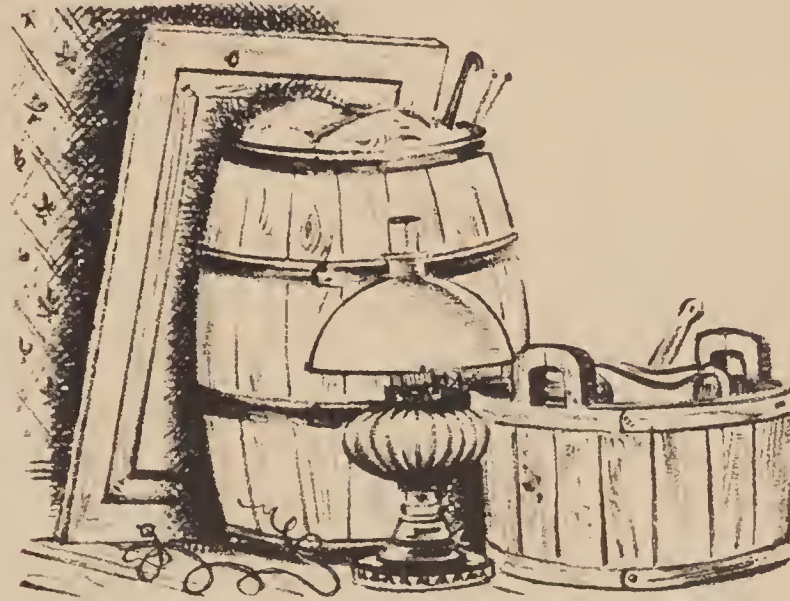
AA Garden Clinic

A reader writes, "We have a palm which was given to us ten years ago. The leaves have started to turn brown at the tips. What causes this?"

Answer — It might be due to over-watering. Palms are partly dormant in winter and should not be watered heavily. Best temperature is between 65 and 80 degrees. Grow in a semi-shaded window; direct sun will scorch the foliage.

Let's Travel Back With JOURNEY TO DAY BEFORE YESTERDAY

by E. R. Eastman



The sales of "Journey to Day Before Yesterday" continue to be good because so many who have read it keep telling others about it. Young and old alike get a kick out of learning how their forefathers lived; and youngsters really begin to believe that Grandpa's stories "really happened."

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- 9—Mackinac Island (no motorized vehicles)
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- 11—Sault Ste. Marie Soo Locks
- 12—Ore Docks — Escanaba, Wisc.
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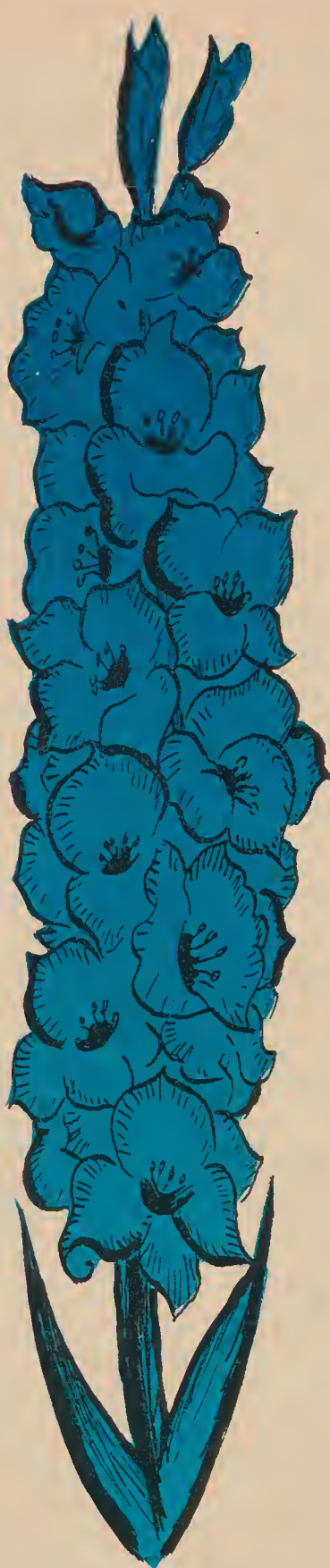
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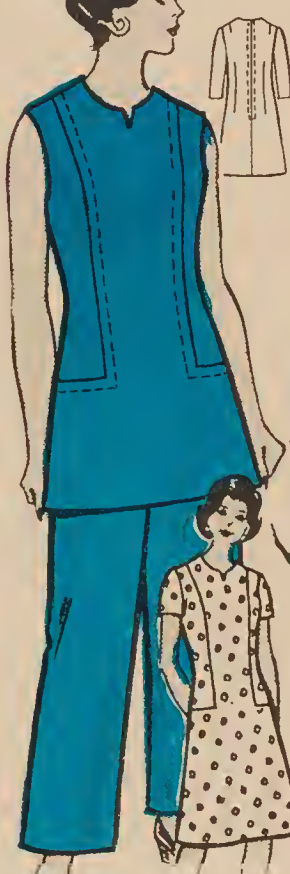
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the HOUSE

Published by Armstrong Cork Company, "Common Sense About Kitchen Floor Coverings" is good reading for everyone considering the purchase of new kitchen flooring. Armstrong, who is in a position to be objective in the matter since it makes both carpet and resilient flooring

stances which may be damaging to carpet unless attended to immediately.

The picture shows how carpet and resilient flooring are skillfully blended in one home to provide both luxury and practicality. In the kitchen, center of family activity, a richly embossed



products, says there is "no evidence as yet to indicate that any soft surface floor covering currently on the market affords sufficient ease of maintenance or resistance to staining to justify its use in the kitchen."

Armstrong contends that vinyl and linoleum floors are not only more sanitary in a kitchen, but also offer better resistance to spotting and soiling. They are largely unaffected by grease, fruit stains, coffee spills and other sub-

vinyl floor was chosen to provide beauty, long wear life and easy, carefree maintenance. In the living room, a color-matched carpet was chosen to extend the floor color scheme and to provide the touch of warmth and luxury desired in this area of the home.

Copies of "Common Sense About Kitchen Floor Coverings" are available free of charge from Armstrong Cork Company, Dept. P.I., Lancaster, Pa. 17604.

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Any idea where Mrs. Kenneth Sears, R. D. 1, Natural Bridge, N. Y. 13665, can purchase a "Brown Bobby" machine for making triangular doughnuts?

Pieces of Noritake China, "Azalea" pattern? Mrs. George E. Adams, R. D. 1, Box 155-A, Alton, N. H. 03809, would like missing pieces for her set.

An instruction book for use with an RCA-Victor Record Player, Total Sound Stereo, Model 4VC42, 4 speed? Mrs. Robert Russell, R. D. 3, Box 169, Newfoundland, N. J. 07435, purchased the player at a garage sale and needs an instruction book.

Any old books by Gladys Taber? Mrs. Georgina Bruno, 100 Centre Drive, Rochester, N. Y. 14633, is especially eager to get "The Book of Stillmeadow" and "Stillmeadow and Sugarbridge with Barbara Webster."

Any Japanese hull-less popcorn? Alden G. Barber, Hermon, N. Y. 13652, wants some for seed. He says it can be either white or brown in color.

Small quantities of yarn you would ordinarily throw away? Mrs. Dora Aither, R. D. 1, Hyde Park, Vermont 05655, can use any lengths.

A copy of "Genealogy of the Fuller Family of Canajoharie or Palentine Bridge?" If so, Mrs. Earle Fuller, Sr., R. D. 3, Amsterdam, N. Y. 12010, would like to hear from you.

Directions for making double knit mittens? Mrs. Damon Palmer, Dickvale Rd., West Peru, Maine 04290, would like very much to have them.

'S FUNNY

by Roy Z. Kemp

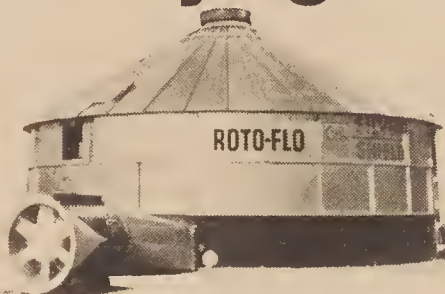
My Mom can hammer in a nail
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Children will love helping color and decorate hard cooked eggs to make this attractive centerpiece for the Easter dinner table. And be sure to use your prettiest linens, china and silver for this happy occasion.

Easter Day MENUS

by Alberta Shackelton

Easter is spring, no matter what the calendar states or what the weather turns out to be, so make the most of this joyful time with flowers, foods and settings to match the season. A special Easter breakfast just for family or a few friends is a good way to start the day. Then comes the Easter dinner to be enjoyed leisurely, with table and food planned for beauty.

Easter traditions vary from land to land and even from one part of the country to another. Ham on our breakfast menu and lamb, the featured dinner meat, are sure to be choices for many people. Fresh coconut cake or fresh coconut cream pie are also traditional Easter favorites with some families.

HAM 'N EGGS BENEDICT (With Mock Hollandaise Sauce)

2 tablespoons butter
2 tablespoons flour
1 cup milk
¼ teaspoon salt
Dash pepper
2 English muffins
4 slices cooked ham
4 eggs
2 egg yolks
6 tablespoons butter
1 tablespoon lemon juice

Melt butter, stir in flour, salt and pepper and gradually stir in the milk. Cook over medium heat with stirring until smooth and thickened. Set aside. Separate English muffins with fork, lightly butter, and place with ham slices on cookie sheet. In a preheated broiler, broil until muffins are toasted and ham is curled.

Place a ham slice on each muffin half and put on warm platter; keep warm. Poach eggs in a regular egg poacher or in a skillet filled with

sufficient boiling water to cover eggs. If using the latter, metal canning jar bands placed in skillet to contain each egg will produce a well shaped poached egg.

While eggs are poaching, reheat sauce (with stirring) and stir in the 2 egg yolks, 6 tablespoons butter (one at a time) and 1 tablespoon lemon juice. Top each ham-covered muffin slice with a well-drained poached egg and spoon on some of the sauce. Garnish platter with watercress or parsley. Serves 4.

GLAZED ROAST LEG OF SPRING LAMB

5 to 7 pound leg of lamb
Salt and pepper

Ask your meat dealer to "French-style" your leg of lamb. To do this, he will remove the meat from lower portion of the shank bone, exposing one inch or more. You will then be able to dress it up for serving. (An "American-style" leg has the shank bone removed, and the meat is then wrapped around, making a more compact cut.) Do not have the "fell" or paper-like covering removed. It helps to preserve shape of the leg during roasting, to retain juices, and shortens cooking time.

Roasting. Wipe lamb with a damp cloth and rub with salt and pepper. If you wish, rub the surface with your favorite herbs, or a combination of ground rosemary, paprika, sweet basil, salt and pepper is popular. Place leg of lamb, fell side up, on a rack in a shallow roasting pan. If you use a thermometer, insert it so the bulb reaches center of thickest part of leg but does not rest on bone or fat.



Photo: Rit Easter Egg Dyes

Roast lamb in a slow oven (350°) 30 to 35 minutes per pound or until meat thermometer registers 175° for medium doneness or 180° for well done. Do not add water and do not cover; basting is unnecessary. A 5 to 8-pound leg will require approximately 3½ to 3¾ hours.

To Glaze Roast. About 30 minutes before roast is done, remove from oven and brush top with softened current jelly (or other desired flavor). Repeat this two more times before roasting is completed. Plan roasting time so roast can stand in warm place about 20 minutes after removing it from oven. This will allow roast to firm up and make it easier to carve. Remove roast to hot platter for serving and garnish as desired.

Suggested Garnishes. Spiced crab-apples, apricots or peaches; pineapple slices topped with maraschino cherry or coconut; scalloped lime, lemon and orange shells, each filled with different colored jelly; minted pear halves; orange baskets filled with coconut-topped fruit mixture; grapefruit shell filled with mint sauce; broiled tomatoes topped with whole broiled mushrooms.

Dress up roast by placing paper frill on shank bone. To make a frill, fold a 5×6-inch piece of white or colored paper once, to make a piece 2½×6-inches. Make cuts in the fold side at ¼-inch intervals and about 1½ inches deep. Then turn the fold inside out and wrap uncut portion around bone to form the frill. It is possible that your meat man can supply you with a frill.

Carving. Place leg of lamb with shank bone to carver's right and thick, meaty section to back of platter. Remove several slices from the thin side, then turn roast to rest on cut surface. With fork inserted at the left end, carve thin slices down to bone. Run knife along leg bone, releasing all slices at once. The carver may, if desired, remove the fell before starting to carve.

RICE WITH MUSHROOMS AND ALMONDS

2 packages long grain and wild rice combination
1 pound fresh mushrooms or 2 small cans broiled sliced mushrooms
¾ cup toasted slivered almonds
½ cup chopped parsley if desired

Prepare rice as directed on package. Slice fresh mushrooms and sauté in butter. Combine cooked

rice, mushrooms, toasted almonds and parsley and place in casserole. Serve hot. If mixture needs some moisture while heating, a little canned chicken broth or bouillon cube dissolved in water may be used. Serves 6 to 8.

CITRUS AVOCADO SALAD BOWL

Place bite-size pieces of several crisp salad greens in an attractive glass salad bowl, standing some leaves of lettuce up around the edge. Place about 1 cup of very thinly sliced celery and 2 tablespoons finely-cut chives in center. Over top arrange sections of white and pink grapefruit and avocado slices (you may add thin slices of unpared red-skinned apples also if you wish).

At serving time, pour Fruit French Dressing over salad and toss lightly. To make Dressing, use your favorite French Dressing recipe, substituting orange juice and a little lemon juice in place of vinegar. Lightly sweeten to taste and add salt and paprika to taste.

FRESH COCONUT CREAM PIE

1 baked 9-inch pastry shell
¾ cup sugar
¼ cup cornstarch
½ teaspoon salt
2½ cups milk
3 egg yolks slightly beaten
1 tablespoon butter
1½ teaspoons vanilla
1 cup freshly grated coconut
3 egg whites
¼ teaspoon cream tartar
Dash salt
6 tablespoons sugar

Combine sugar, cornstarch and salt and stir in milk gradually. Cook with constant stirring over medium heat; boil one minute. Stir a small amount of mixture into egg yolks, blend well, and stir into remaining cornstarch mixture; cook with constant stirring for about one minute or until thickened.

Remove from stove, add butter and vanilla, and cool slightly. Fold in coconut and pour mixture into pie shell. Top with meringue.

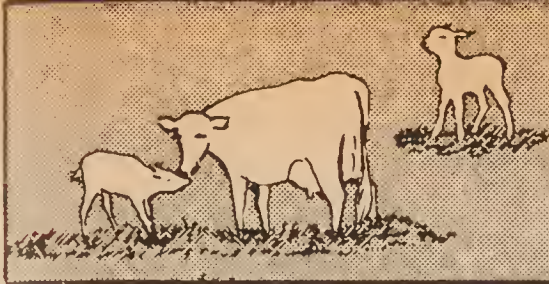
To Make Meringue. Beat egg whites until foamy, add cream tartar and salt and beat until stiff but moist peaks form. Spread meringue over filling being sure to seal meringue to edge of shell. Bake 5 minutes in preheated moderate oven (350°) until meringue is set and delicately browned. If desired, meringue may be sprinkled with grated coconut before baking.

EASTER BREAKFAST

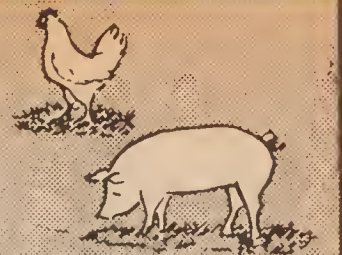
Honey-broiled Grapefruit
or
Spiral of Orange Sections
Ham 'n Eggs Benedict — Hollandaise Sauce
or
Eggs in Nests Sausage Links
Blueberry Coffee Cake
Coffee

EASTER DINNER

Seafood Cocktail or Chilled Consomme
Glazed Roast Leg of Spring Lamb
Spiced Apricot-garnished
Rice with Mushrooms and Almonds
Green Peas with Small Onions in Cream
Citrus-Avocado Salad Bowl — French Fruit Dressing
Golden Crescent Rolls Relishes
Fresh Coconut Cream Pie or Strawberry Ice Cream Pie
Coffee



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DAIRY FARM, 330 acres, new home, 3 barns, 2 silos, milk tank, 125 milk cows, 24 young stock, 3 tractors, all machinery, yearly milk check \$85,000—price \$250,000. Vermann, Cox-sackie, New York 12051. Telephone (518)-731-6522.

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CORTLAND, N.Y. AREA. A 600 acre farm with 275 tillable acres much of which is river bottom—excellent corn and alfalfa land with over 20,000 bales of hay per year. Modern barn 34x230 with stanchions for 106 cows. Concrete silos 18x60 and 14x40 with silo unloader. Farm has bulk tank, dumping station and barn cleaner. Two houses one of which is in good condition. Priced at \$100,000 with \$30,000 cash or equity needed. Contact Zar Benedict at 914-343-1108 or write Barmann's Realty Sales, Inc., at R.D. #4, Middletown, New York 10940.

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260 ACRE DAIRY FARM, Addison, N. Y. 500 acre dairy farm Penn Yan, N. Y. 300 acre dairy farm Hornell, N.Y. Millard Brush, Broker, Bath, N.Y. 607-776-6306. Ford Hoteling Apt. after 5, Bath, N.Y. 607-776-6944.

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CULTIVATED BLUEBERRY FARM — 200 acres hard road, town water. Development potential. Colonial home, barns. Dairy, horse farms. Robert Colleser, 549 State St., Springfield, Mass. 01109.

102 ACRE ONE MAN dairy farm. Good 8 room house, barn, bulk tank, water cups, silo, black top road \$33,000 bare, stock at inventory. 52 acres, good 8 room aluminum sided house, barn, black top road \$15,000. 3 acres near town, 6 room older house needs repairs \$8,200. Write Reliable Realty, Owego, New York 13827.

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265A dairy—barn for 50; 4 bedroom house, \$45,000. 285A—70 free stalls - parlor - 800 tank. 4 bedroom house, 2-car garage \$60,000. 471A, near Cornell—110 stalls, 44 free stalls, 2 Harvestores, 2 houses, \$147,500. 205A—cash crop—2 large barns, 4 bedroom house, \$55,000—owner carry 40M. 630A—barn for 50, 2 silos, 4 bedroom house—near Auburn and Skaneateles, \$127,500. 60A—2 barns, silo, 3 bedroom house, 5 miles Auburn, \$20,000. Samples our many listings. Call 315-253-3813 or write giving phone number—Mal-Tut Real Estate, 10 William St., Auburn, N.Y. 13081.

FINGER LAKES AREA. 75 privacy acres, pasture, woods, pond. Completely modernized, rebuilt 1820 home, 3 bedroom size. Small barn. Unlimited water. Excellent at \$22,000. Village, country homes, dairy and crop farms, businesses, recreation. Henry Stack, Realtor, 147 Genesee St., Auburn, N.Y. 13021. Phone: 315/253-6278.

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MAINE FARM—Palmyra—300 acres (110 tillage). Excellent 10 year old barn for 40 milkers and room for young stock. Exceptional 5-bedroom modernized home. Not operating. Price \$54,000.00. H. Earl Megquier, Lamb Agency, 645 Forest Avenue, Portland, Maine 04101.

FARMS FOR SALE

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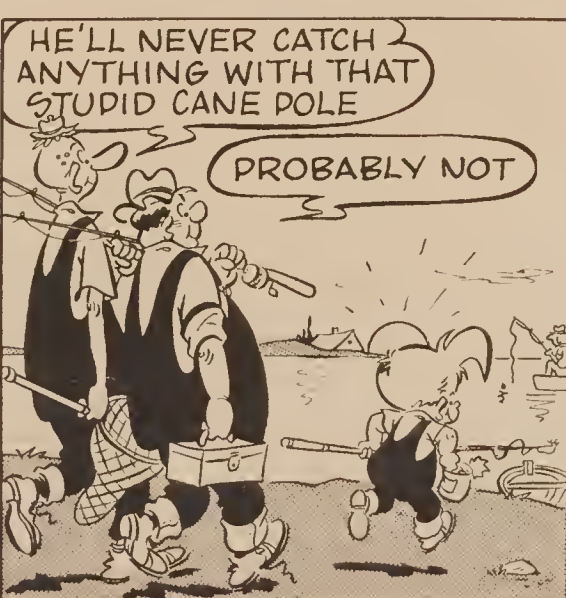
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American Agriculturist, April, 1971

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PUBLIC AUCTION — WENGER'S FARM MACHINERY, INC. Tractors, combines, trucks, automobiles, used equipment, new equipment, over 200 tractors and 1,000 pieces of farm equipment. Monday, April 5, 1971. Sale time—9:30 A.M. A million dollar inventory liquidation auction. Make plans now to attend. Location: South Race Street, Myers-town, Pennsylvania—6 miles east of Lebanon, Pa., on State Road #422, which is located 20 miles west of Reading, Pa., and 30 miles east of Harrisburg, Pa. Note: Commercial air travel into Harrisburg, Pa. Private planes may land on asphalt airstrip at County Airport in Myerstown, Pa., near the sale site. Overnight accommodations may be arranged by calling (717) 866-2138. Order of sale: 9:30 A.M.—Auction will start on smaller new and used items. 10:00 A.M.—Selling farm equipment. 1:30 P.M.—Combines and large farm machinery. 2:00 P.M. Tractor auction will start. Farm Machinery—New Tractors: Ford 5000 & 4000 with loaders; M.F. 165D & 135D; IHC 544; David Brown 1200 & 990; Industrial: 1968 IHC #500 crawler loader; 1967 AC #HD-4 w/dozer; Oliver #H6-42; Case late model 310 loader & scarifier; Cat D2 dozer; IHC TD-6 Dozer; nearly new Bob Cat loader; unloader; MF #201 fork lift; MF #302 BH and loader; J.D. 6000 BH & loader; J.D. 4010 BH & loader; Case 530 CK-BH & loader; IHC #460 BH & loader; Fordson Major w/BH & loader; J.D. 840 self loading earth mover pan; IHC road grader. Farm Tractors: Four J.D. 4020; 4010; two 3020's; two 3010's; 2510; 2010; two 730's; 720; 530; 420; 60's; 70's; A's; B's; G's; International 1206; 806; 706; 656; 560; 660; 300; 400; three Super MTA's; 140; 120; 340; plus more; Oliver: 1850; 1800; 1650; 1550; 770; 1550; 77's; 88's; Super 88; 880's; 550; Fords: 6000; 5000; 800; special 4 wheel drive 841 w/loader; 960; 3500 w/loader; 4500 w/loader; 600's; seven 8N's; 9N's; Massey Ferguson: 1130; 1100; 175; two 165's; 135; 50; 65; 35; 30; pony; Massey 44 and 85; Allis Chalmers; 190XT; three D-19's; D-17; D-15; D-14; D-10; CA; WD-45's; WD; WC; C; B; and two G's; Case: 930; two 830's; 800; 730; 630; 600; VAC and DC; Minneapolis: Good G-1000; G-705; M5; 5 Star; and 445. There are also 25 older tractors. 20 New And Used Garden - Lawn Tractors 20. 15 Trucks - Semis - Trailers 15. Two 1964 Mack twin screw tractors; trailers; two 1970 Ford farm trucks; 3 late model pick-ups; 6 other large farm trucks. 4 Automobiles—1970 Chrysler 300 four door; 1969 Caprice; 1969 Chevelle; 1966 Impala; New Farm Equipment: 30 wagons—4 forage boxes; 20 grader blades; 6 manure spreaders; 20 EMCO rotary mowers; 5 Dunham loaders; 4 hay racks; ENCO posthole diggers; 4 forage blowers; gravity boxes; plus many other items used farm equipment. 52 field choppers; 28 forage blowers - chopper wagons; 50 combines; 19 of which are self-propelled; 25 corn and grain heads; 100 cultivators; 31 corn planters; 4 field cultivators; 43 disc; 151 plows; 12 harrows; 6 culti-mulchers; 25 cultipackers; 50 rotary hoes; 15 hay windrowers; 14 hay crushers; 16 hay balers; 20 hay rakes; 50 hay mowers; 2 P.T.O. grain dryers; 8 elevators; 16 grain drills; 10 field sprayers; 10 grinders & feed mixers; 49 manure spreaders; 15 lime spreaders; 36 tractor loaders; plus a full line of smaller equipment. Wenger's Farm Machinery Inc., Owner, South Race St., Myerstown, Pennsylvania. Phone 717/866-2138. Terms: Cash when equipment is moved. The Full Service Auction Companies: Don Fry, Edon, Ohio, Phone 419/272-4294. Kruse Real Estate & Auctioneers, Inc., 300 Block South Union St., Auburn, Indiana. Phone 219/925-4004. Assisting Auctioneers: Dean Kruse, Ralph Horst, Robert Shinaberry, Blain Rentzel, Vernon Martin, Clyde Wolgemuth, Jim Vaughn, and Elias H. Frey.

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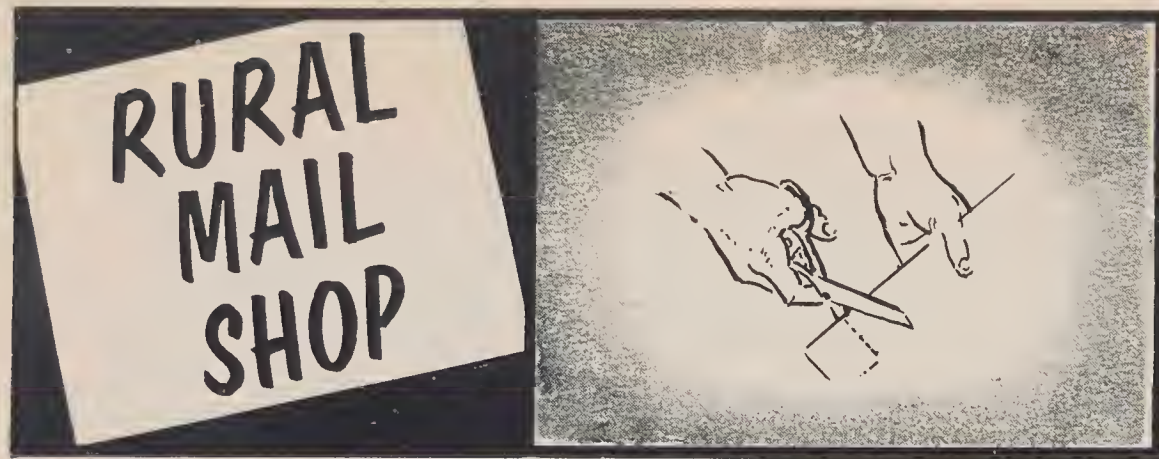
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Further east, top growers included these New Yorkers: Coon Brothers, Amenia; Robert Lourie, Salem; Howard Anderson, Accord; Severyn Hasbrooke, Hurley; Smithfield Farms, Amenia. New England honors went to Albert Giulian, Canaan, Connecticut . . . and John Rogaleski at Hatfield, Massachusetts.



Winners (l. to r.) in DeKalb's 1970 corn growing contest in eastern New York and New England (see addresses above): Roger Anderson, James Place (Smithfield Farms), Severyn Hasbrooke, Jr., Albert Giulian, Dirck Coon.

National Corn Growers Association also named winners in its 1970 contest: Anderson (1st in NY), Hasbrooke (3rd in NY), and Giulian (1st in Conn.).

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This unusual offer starts you now. Take advantage of this amazing pre-planting season mail order bargain offer. You get 1 blight resistant Chestnut tree. Also the exclusive booklet, "How to Grow Nut Trees", PLUS a catalog with Grafted Pecans, Black Walnuts, English Walnuts, Almonds, Filberts and Hicans and hundreds of superior nursery items (Reg. \$1.95 value) all for \$1.00. Satisfaction guaranteed. Start toward pleasure and profit today. Send your name, address and \$1.00 to:

NUT TREE BARGAIN OFFER No. N-408 BILL BOATMAN & CO.

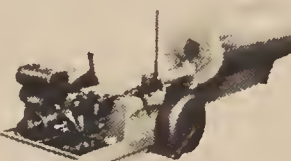
1604 Maple St. Dept. 65 Bainbridge, Ohio 45612

LICKITY BRUSH CHIPPER



Chips limbs up to 4" diameter. Now has longer, wider feed chute, improved feed roll, blower and chute assembly. Standard hammer-mill rotor. Optional hopper permits processing soil, leaves, stalks, hay or bark. PTO and gas engine drive models. Check coupon for details.

LICKITY LOG SPLITTER



Splits Big Profits from toughest woods—Ends Splitting Drudgery with 18 ton hydraulic power!

7 H.P. trailer unit squats under power to load logs without dead lift. Has 2 speeds, auto-shift, auto-stroke. 26" ram travel splits logs up to 34", any diameter—with extended frame and adjustable wedge splits up to 60". NEW LOW COST Economy model for farmers and small wood lots. Also ask about the 60L Series for logs up to 8 1/2 ft. long. Check coupon for details. DEALER INQUIRIES WANTED.

PIQUA ENGINEERING, INC.

DEPT. AA, P.O. BOX 605, PIQUA, OHIO 45356

Send me information on items checked below. No obligation.

☐ LICKITY BRUSH CHIPPER ☐ LICKITY LOG SPLITTER

Name _____

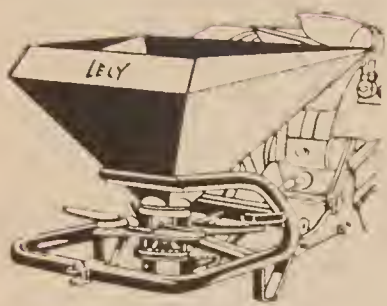
Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Now there's one machine for spreading fertilizer, seed, granular chemicals, sand, salt, etc.



It's the incomparable Lely — the world's most precise and versatile broadcaster.

Because of Lely's patented centrifugal forced feeding spreading mechanism, Lely can handle more materials with greater accuracy than any other machine. With Lely, you can broadcast up to 52' wide.

And, a Lely on your farm means you can do the job when it has to be done. Lely's simplicity and durability assure longer life and minimum maintenance.

Now there are 14 Lely spreaders to choose from — pto or ground drive, tow-type or hitch-mounted.

Suggested retail prices start as low as \$300.00.

Ask your dealer today about Lely broadcasters, or return coupon for full information.



- () Send complete line spreader leaflet
() Have representative contact me

Name

Address

City

State Zip

Phone

() Farmer () Dealer () Other
(AA 271)

RETURN COUPON TO: LELY, Box 1060, Wilson, N.C. 27893



The Saguenay River cruise is one of the loveliest boat trips to be found anywhere. Towering cliffs and majestic mountains rise from the water's edge and remind you of Norway's fjords.

COME ON ALONG!

Last year it was feared the legendary steamer "Delta Queen" would not operate in 1971. Now comes the good news that she will again ply the mighty Mississippi, so Travel Service Bureau has arranged another popular **Delta Queen-Deep South Holiday** for A.A. readers. The dates are **May 6 to 23**.

Our group will gather in Atlanta; the Cyclorama, Peachtree Center, and world-famous Stone Mountain are just a few of the places we will visit there. On our way to Montgomery, Alabama's capital, we'll see Callaway Gardens, Mountain Creek Lake, and Tuskegee Institute. We'll drive along the flower-lined Azalea Trail in Mobile's beautiful residential district and then on to New Orleans where our hotel is in the famous French Quarter.

After enjoying New Orleans' historic and fascinating sights, we board the Delta Queen for a six-day cruise upstream on America's only paddle-wheel steamer. We'll visit historic ports and interesting old river towns, stop at St. Louis, and continue on to Cincinnati where we say goodbye to the Delta Queen and all the friends we've made on this wonderful vacation. Make your reservations today; this may be your last chance to enjoy this unique steamer.

Another Delightful Cruise

In 1969 and 1970 more than 100 people went on our mid-summer cruise to **Eastern Canada and Bermuda**, and we have had many letters saying what a wonderful vacation it was. The dates for this year's cruise are **August 5 to 18**, and our ship will be the new, spacious TS Hamburg. From the moment you step on board, you'll be pampered with gourmet food, luxurious state-rooms, and every pleasure a cruise ship can offer for your comfort and enjoyment.

Leaving New York, we enjoy the cool Atlantic breezes as we sail around the New England coast and into Canadian waters. Our first stop will be at Ingonish on Cape Breton Island, and a shore excursion will take us along the beautiful Cabot Trail to Sydney where we rejoin our ship.

The Gaspé Peninsula comes next, and we go ashore at Perce which was once the most important fishing port in Canada. Today, it's a well equipped tourist center. We reboard our ship at Gaspé. Sailing up the St. Lawrence River, we pass the historic village of Tadoussac and enter the Saguenay River to travel through a wonderland of towering cliffs and majestic mountains that rise right

from the water's edge and rival the fjords of Norway.

We will spend two evenings and a full day in Quebec City, the only walled city in North America. We'll see the sights of the city as well as famous Ste. Anne de Beaupre Shrine and Montmorency Falls.

One of the joys of cruising the St. Lawrence is watching for ships. You're sure to see interesting vessels from many countries as we travel back down this mighty river. We go ashore on Prince Edward Island, sometimes known as "Canada's Million-Acre Farm," and enjoy a sightseeing excursion that will give us an insight to its people and history. Halifax, capital of Nova Scotia, is our next port of call; here again we enjoy a tour of the city and surrounding area.

Now we're Bermuda-bound on the high seas. There's something to do every minute aboard the spacious Hamburg from early breakfast till midnight buffet! Or you can just relax on deck and enjoy the sunshine.

Bermuda is a place of beauty and unhurried charm . . . the clip-clop of a horse's hoofs echoes through the air, as a carriage rolls along quiet lanes ablaze with hibiscus and oleander. Sightseeing in Bermuda includes Crystal Caves, Devil's Hole, the Aquarium, and many picturesque caves, bays and pastel-colored homes, also Lili Perfume Factory where the essence of Bermuda's world-famous passion flower is extracted. There will also be plenty of time for shopping.

Our last full day at sea on the way back to New York gives us time to relax, chat with the new friends we've made, and enjoy that marvelous food and service we've become accustomed to. Write today for the Eastern Canada-Bermuda Cruise itinerary and learn how reasonable the price is for this delightful mid-summer cruise.

It's Not Too Late

There is still space available on all the tours and cruises listed on the coupon. Our Inland Waterway Cruise aboard the Mt. Hope is almost sold out, so it is very important that you made your reservations very soon for this trip.

All AMERICAN AGRICULTURIST tours are arranged by our travel agents, the Travel Service Bureau of Needham, Massachusetts, and all are escorted, "all-expense" trips, with practically everything included in the price of the ticket. Fill out the coupon and mail it today; we'll send at once the itineraries which interest you.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

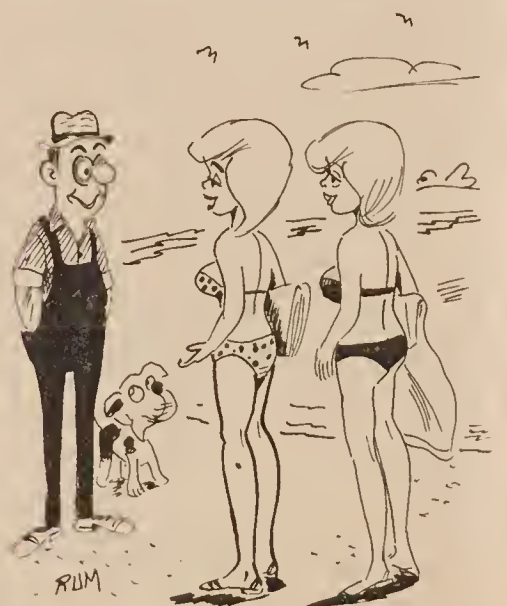
Delta Queen-Deep South	Heart o' the West
Eastern Canada-Bermuda	Alaska Cruise
Great Lakes Circle Tour	Spain-Portugal
Scandinavian Holiday	Grand European Tour
Grand Alpine Holiday	Italian Holiday
British Isles-Iceland Holiday	Mexico Fiesta Tour
Mt. Hope Cruise	Around America by Rail and Sea

Name

Address

Zip

(Please print)



"Would you mind if we swim in your pond?"

American Agriculturist, April, 1971



Cherries — Alar-85 will help growers produce better tart cherries more readily suited to mechanical harvesting, according to tests conducted at Michigan State University.

Studies show that cherries from Alar-treated trees had more uniform color, kept better, and matured a week earlier. Growers can harvest earlier and reduce hazards of weather damage. Treated fruit also were more firm, had fewer defects when delivered to the processing plant, and showed less scald after a prolonged pre-processing soak period.

Tree Paint — Exterior white latex paint at full or half strength appears to be the most satisfactory material for preventing sunscald on young filbert nut trees, according to researchers at the Oregon Agricultural Experiment Station. Trunks of unprotected young trees may be 86 to 104 degrees F. warmer than the air temperature when exposed to sunlight.

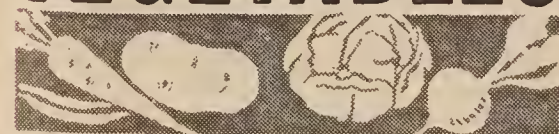
The same principle applies to peach trees in winter. In many New Jersey orchards, peach tree trunks are painted with latex paint to help reflect heat and keep the trunks cooler during warm days. This reduces the amount of trunk injury during extreme temperature changes. Some growers use whitewash, which is cheaper than paint, but does not last as long.

Saucy — The laboratories of Ocean Spray Cranberries, Inc. have developed a new specialty product called "Apple Saucy." Packed at Ocean Spray plants from December to June, it uses machinery during the off-season for cranberry processing.

So far, only McIntosh apples are being used . . . uncored and unpeeled. Finished product is a smooth, tangy material that slices like a molded salad.

Growers are being invited to join the National Apple Associates, a cooperative that will be the sole source of apples processed into "Apple Saucy." For details, contact NAA secretary John Lyman, Jr. of Middlefield, Connecticut 06455.

VEGETABLES



Foil Pros and Cons — Experiments with squash and other crops at the Connecticut Agricultural Experiment Station show that aluminum foil mulch greatly increases production by repelling the aphids that carry crop-damaging mosaic virus diseases. Cost of foil for mulching an acre of squash, though, ranges from \$180 to \$200, not including expenses for machine-laying.

Researchers advise balancing

initial costs against savings recovered from reduced cultivation, spraying and irrigation. Foil can be plowed under after use. Seed companies might find foil mulch useful in insuring good seed quality in areas where aphid-transmitted virus infection is a problem.

Honored — Frank L. Clark . . . widely-known potato grower of Avoca, New York and St. Petersburg, Florida . . . is proud possessor of an Honorary Life Membership in the Potato Association of America. A pioneer in certified seed production, he more recently has emphasized production of potatoes for tablestock and chipping.

Seed Tape — After five years of development and field testing by Union Carbide in cooperation with the Keystone Seed Company, a new seed tape method of planting . . . claimed to slash planting time and costs, improve crop yields and increase grower profits . . . is in full-scale production.

With the new system, called "Evenseed," seeds are properly spaced on water-soluble plastic tape, then the tape is sealed and wound onto reels holding 5,000 to 20,000 feet each. Planting method is similar to that used in laying cable. Any kind of seed can be taped . . . even field corn. A specially-developed planter is available or conventional raw seed planters can be converted to handle seed tape.



Rolls of "Evenseed" seed tape are ready for field use.

Introducing the end of the dripples!



The new Jacuzzi AquaGenie Water System ends water dripples in the shower . . . at the kitchen sink . . . thru your garden hose . . . anywhere a drop in water pressure interferes with your use of water.

This pump starts automatically on demand, delivers a large, steady volume of water at a constant pressure. The first such domestic water well system, it provides fresh water straight from the well. No flat tank taste, because it requires no tank. And no tank house or air charger.

The AquaGenie is the most compact, reliable water system ever developed. The easiest to install. The most economical. Pressure is regulated by the exclusive AquaGenie control device, a trouble-free miracle of modern engineering.

For a better country life . . . with water when and where you need it . . . ask your nearby Jacuzzi dealer—your J-Man—about the AquaGenie system. Or write Jacuzzi Bros. Inc., 11511 New Benton Highway, Little Rock, Arkansas 72203.



**See your local J-Man
for a FREE DEMONSTRATION!**

a name for water when thirst won't wait



WINTER ROADS

Our forebears excelled at making something from materials at hand. Of course, this was more than native thrift expressing itself. Often there weren't many choices but to use what was handy or go without!

At any rate, just as the Indian showed considerable ingenuity in making the most of what was at hand when he fashioned food, clothes, ornaments, leather tanning materials, and hand tools from the buffalo... so did the early settlers use the forests.

With a minimum of metal, they used their native lumber for building roofs, furniture, hand tools, machines, fences, and even roads. The old plank and corduroy roads certainly were an excellent illustration of how they made use of what they had and what could most easily and well meet a need.

With gravel still underground... probably most deposits as yet undiscovered... there was a real need for something to keep the rigs and teams up out of the springtime mud. And lest we forget, many of the roads through the woodlands were springy and soft much of the time.

A layer of logs certainly gave a "bottom" to a roadway. Some of us needed just such a bottom to the roadways across our fields this winter: Getting through the snow with a loaded manure spreader got to be a real challenge. Quite by accident, we found a way to build a solid winter road on a couple of feet of snow.

We spread liquid manure on some near-zero days and observed that it soon froze hard enough to support an empty spreader. By spreading three or four layers on over a two-day period, we soon had a "road" which would support a large tractor with a seven-ton load behind it; with the weather we had this year, it was a blessing for several weeks.

Naturally, a good thaw turned this highway into a pretty sticky mess but for a long time we were well pleased with the results of merely using what was at hand.

Observation of farms both near and far leads one to the conclusion there may be a lot of big corn grown near a great many barns in 1971. Many of us felt like the basketball player who had the ball and was being harassed by two opposing players. His thoughts were, "Any place to get rid of it!"

SO WHAT'S NEW?

Not as much as we think. Narrow rows for corn, for instance, were tried out years ago. Grain drills planted corn solid or in 18 or 22-inch rows if every third run was used. I recall some solid corn in our area when I was a kid.

Of course the harvesting was a hand operation, which may be one reason why it didn't catch on. Weed control problems also probably helped kill off the narrow row corn idea until herbicides came along.

We visited a big new shopping center at Christmas time. It had a nice enclosed central mall and was very fine. New idea? Not exactly. As early as about 1850, Bouckville had a heptagonal shopping center with several merchants located in one large building. Each store had

street frontage and still had the advantage of being a building with others.

Among other "new things" in recent years is the cab on tractors. Of course, it may be a bit more fancy now but how new is it? Ever see a steam engine without a cab? or at least a roof over the driver? Sure, maybe it was to keep the smoke and soot off but it was there, anyway. Now we put some sides on to hold in the heat and keep out the cold, the wet or the dust, and have something "new."

Hate to end this on a sour note, but the new thing in women's dresses is the midi. As any girl watcher can tell you, this isn't exactly new... having been around a time or two in our own lifetime!

IT CAN'T HAPPEN HERE

In the spring of 1960 I spent a brief time in Brazil. Many things impressed me about this country — its tremendous agricultural potential, the beauty of its beaches, its new capitol, the setting of the city of Rio de Janeiro.

Perhaps the thing I remember most

taken their toll and I no longer smelled so well. In defense, I contend I smell real good! Others younger than I have also failed to smell the buckwheat.

One gentleman indicated that the buckwheat planted near his home when he was a boy had no odor, so today's plants were no different.

Some USDA research people, and some beekeepers, commented that bees do not "work" certain varieties of buckwheat... presumably because there is little or no attracting scent.

Best of all were two persons who mentioned their memories of the pleasant aroma of the buckwheat of yesteryear. Their letters were just what I needed to restore confidence that I hadn't just imagined that pleasant aroma from the fields of buckwheat. But as to what has happened to change the picture we aren't any closer to the facts than before.

One beekeeper said bees didn't work buckwheat from fields that had been limed. Others said their bees just had no use for some fields of buckwheat (liming not mentioned), presumably because the

certainly varies a lot from store to store. Some of our suppliers give almost no concession for volume; others will knock off 10-15 percent. We like to save the money and prefer to have supplies on hand so we aren't forever running out and chasing to town for something.

Enough bolts to make a \$100 order saves 10 percent over a box at a time. Bolts by the box cost half as much as buying them a half-dozen at a time.

Minerals by the ton rate only a relatively small saving. A sizable purchase of fence posts gets a quantity discount but a dozen rolls of barbed wire doesn't seem to change the unit price.

Twine in any quantity appears to carry the same price tag but not so with plow supplies. A large order of points, shin pieces, land slides, etc., brings a nice discount.

Fertilizer suppliers come equipped with a series of discounts based on volume, early delivery, early take, etc., as do the grass seed boys.

It's hard to tell whether the discounts for volume are given for some items and not for others because of custom, competition, or the difference in the size of the markup on various items. At any rate, these discounts amount to a good bit in a year's time. Couple them with the cash discount and it adds up to something no businessman can afford to pass up.

One of the biggest opportunities for saving, up until the past couple of years, was in interest rates. Assuming a good credit rating, there were important differences in interest rates from bank to bank and from customer to customer within a bank. Shopping around a little was, and presumably will be again, a most worthwhile venture for a good many borrowers.

THE REVOLT

According to the papers, people in many other states are groaning about their tax loads just as we are here in New York. The simple truth of the matter is that at all levels of government... towns, cities, schools, county, state and national... we are spending more than we can afford. The minute a local unit over-spends, it looks to the state or federal authorities for additional state aid, grants, or whatever.

Now with many states over-extended, and with the fear of voter rebellion come next election, we see the states turning to Washington for revenue sharing. Where does Washington get it? Back home where we already can't afford more. So with the national budget already out of balance where can the government get more. Go into debt some more and have the budget further out of balance.

To my mind, all revenue sharing does is enable the states to use the credit of the federal government. It's a **debt sharing device** and the worst kind of deception on the people. This is an issue on which every farm family ought to be heard by their representatives in Albany and Washington.

Only by trimming expenditures to what we are currently willing to pay for can we maintain solvency and have a future with opportunity.

American Agriculturist, April, 1971



vividly was the inflation. At that time the annual increase in prices was about 30 percent. I recall the discussion on the plane as we flew homeward. "Well, at least we don't have to worry about that kind of problem," we said.

Now all of us are aware of how much inflation has influenced every facet of life here in the good old U.S.A. Farmers' costs, like everyone else's, have gone up sharply, but I guess we just haven't been aware of what has been happening in some other areas.

A construction project for an organization with which I am affiliated was completed four or five years ago. Recent estimates by an architect and a builder indicate that it would cost double to build today. This figures out to a 20-25 percent rise in construction cost annually. Watch out Brazil, here we come!

This is no idle threat. Nothing in our lifetime has the potential for damage that is contained in this inflationary experience. Now it's commonplace to use last year's price increases as the basis for figuring the minimum acceptable raise in salaries. This is no way to hold the line.

FACT OR FANCY

In a recent column, I asked how come buckwheat in blossom no longer gives out the wonderful aroma it used to. Letters from readers, have been interesting, enlightening, and conflicting!

For a starter, it was suggested that perhaps these many years had

plant had either no aroma, no nectar, or both.

Anyway, we do appreciate the letters. Speaking of beekeepers, you folks do more to promote your product than anyone I know. My gosh, I was impressed by all those attractive letterheads and pamphlets extolling the virtues of honey, as well as a little plug in some of your letters. More power to you. We could all learn something from your example.

SPECIALS!

Every now and again somebody advertises that they are having a "special" on a particular item. If it is something we use anyway we might try to pick up a bargain. Most things we use, we try to buy by the case, dozen, or hundredweight. We walk in to the sale expecting to load up at the good price. What happens? One to a customer! Not one case, or one dozen, or one hundredweight... **one.**

If the idea was to get some people in the store who wouldn't ordinarily be there, then the sale might be rated successful. If the notion lurked in the back of someone's mind that a sale would clear the stock and act as a good will gesture to the customers, I suggest the effort failed.

Inasmuch as no mention was made in the ad that there would be a limit of one to a customer a lot of ill will was created by getting people in the store and then telling them the facts.

This business of buying in quantity

by M. A. Parsons

VIOLETS AND VIPERS!

April showers bring May flowers, but they also bring out the unscrupulous, itinerant workmen, who appear every spring to prey on the unwary, particularly the elderly or those who live alone. Over the years they have been known to us, to Better Business Bureaus, and to police, as the "Terrible Williamsons," although they use many different names.

These itinerants travel like gypsies, usually drive small trucks with out-of-state licenses, and do all kinds of home improvement and repair jobs. They may repair and paint roofs or chimneys, resurface driveways, or check lightning rod installations.

Washes Away

One of their tricks is to say they have just finished a job down the road and have just enough material left to resurface your driveway. They offer you a special deal, do the job, and drive off. With the first rain, the driveway finish washes off.

Or, they may offer to patch and paint your roof. They complete the job in 20 or 30 minutes, give you a guarantee, and leave. One of our readers paid \$90 to have his barn and garage roofs painted. He got a written guarantee that the job would last 6 to 7 years. It didn't last 6 months! But, of course, the man who signed the guarantee was nowhere to be found.

Another subscriber paid \$280 to have his house and barn roofs coated and repaired. After the job was finished, he said the roofs looked as bad, if not worse, than they had before and, after careful examination, he found the house roof was not even repaired!

When he tried to contact the workman, he was told the telephone had been disconnected and the man had disappeared. On his receipt was the statement, "This work is guaranteed for 7 years or recoat."

Move Fast

By the time complaints begin to flood an area, the gang has already moved on to another location. Each year, however, fewer complaints reach us, so hopefully homeowners

are becoming more cautious. Also, law enforcement agencies have become better acquainted with the activities of these itinerants and have kept them moving.

If you are contemplating any home repair work, don't be rushed into reaching a decision. Get more than one estimate, ask for credentials and references, and check with others for whom they have done work.

CAN YOU HELP?

Mrs. F. C. Streland, Fordhook Farms, Doylestown, Pennsylvania 18901, would like the words to the poem, "The Story of Frederick Mouse."

* * *

If anyone has a Pictorial Review Standard Cook Book that is no longer used, Mrs. Blanche M. Driscoll, R.F.D. 1, Hallowell, Maine 04347, would be interested in having it.

* * *

Israel Saffer, 23-2 Funston Ave., Spring Valley, N.Y. 10977, would like to purchase an old-fashioned stereoscope.

* * *

Mrs. Harold E. Didget, 8684 Sanders Rd., Stafford, N.Y. 14143, wants to buy a copy of "The Destroyers" by E. R. Eastman.

* * *

Mrs. Milton Aldrich, R.F.D. 2, Weedsport, N.Y. 13166, would like Delineator magazines for 1920 with a story series by Ruth Boyle.

* * *

Do you know the words to "The Irish Washerwoman?" If so, Mrs. H. I. Hadsell, Swain, N.Y., would like to hear from you.

* * *

Mrs. Raymond J. Baylis, R.D. 1, Cassville, N.Y. 13318, is anxious to find a copy of Bullfinch's "Book on Birds," published in the early 1900's.

* * *

Mrs. Samuel T. Siple, R.D. 1, Brockport, Penna. 15823, wants the words to "The Preacher and the Bear."

* * *

Mrs. Melvin K. Phelps, R.D. 2, Box 166, Gouverneur, N.Y. 13642, would like a copy of the "Dave Minor Learn to Play by Ear Method" for piano.

* * *

If you have copies of the Youth's Companion for sale or trade, please write Owen Slocum, R. D. 2, Clifton Springs, N.Y. 14432.

* * *

Mrs. Robert Burch, South Edmeston, N.Y. 13466, is asking help in finding a 5-volume set of small books, "Our Daily Homily," by F. B. Meyer.

Local agent "Turk" Muller of Bath, N. Y. delivers North American benefits.



FELL DOWN SILO

Attempting to remove a silo door James Cornish, Troupsburg, N. Y. slipped from the ladder and fell 35 feet down the silo chute. He fractured both heels and cut his head. Three times Mr. Cornish was hospitalized for operations on his heels. His hospital-home recuperating income policy paid \$1542.87, other N. A. policies paid an additional \$712.13 in weekly income and hospital benefits. Altogether, Mr. Cornish received \$2255.00.

THROWN BY BULL

Harold Mullen of Canisteo, N. Y. was loading a bull onto a truck when the bull made a charge. The lead rope caught Mr. Mullen whipping him to the ground. Suffering injury to his right elbow he saw the doctor that day then was laid up unable to work for sixteen days. Carrying a combination of N. A. policies Mr. Mullen received weekly income benefits amounting to \$171.40.



OTHER BENEFITS PAID

A friend's name may be in this list.

Katherine McMahon, Canaseraga, N.Y. \$ 178.80	James Foley, Waterville, N.Y. \$ 133.56
Slipped on floor—broke wrist	Charged into by heifer—broke finger
L. Mae Barlow, Maine, N.Y. 813.20	Margaret Hamilton, Marcellus, N.Y. 1155.43
Fell—inj. knee, broke wrist	Fell—broke ankle
Harriet P. Schuyler, Franklinville, N.Y. 285.00	Martha W. DeMartinis, Holcomb, N.Y. 317.28
Knocked down by calf—broke ankle	Auto accident—mult. bruises
Fred Telaak, Little Valley, N.Y. 438.15	Carl P. Hanks, Medina, N.Y. 748.03
Tractor went over ramp—broke heel	Fell from scaffold—concussion
Leonard Lawrence, Auburn, N.Y. 1482.14	Robert Hunkins, Lacona, N.Y. 1260.00
Auto accident—head injury, broke leg	Auto accident—broke elbow
Anna M. Horn, Cato, N.Y. 144.10	Donald J. Edwards, Morris, N.Y. 1110.70
Caught in wringer—inj. hand	Hit by flying stone—broke leg
Martin L. Miller, Clymer, N.Y. 1585.00	Irene M. Woods, Brasher Falls, N.Y. 300.00
Slipped on ice—broke back	Slipped in barn—broke foot
Harry Williams, Sr., Sherman, N.Y. 892.80	Ralph Edwards, Cobleskill, N.Y. 2238.57
Fell from scaffold—broke heel	Auto accident—broken ribs
Robert H. Manchester, Pine City, N.Y. 141.42	DeForest Bush, Watkins Glen, N.Y. 394.90
Kicked by cow—broke arm	Slipped and fell—broke arm
Nelson J. Post, Shelburne, N.Y. 625.21	Helene Harkenrider, Rexville, N.Y. 178.00
Cleaning field chopper—broke hand	Fell from horse—broke hip
Roger Sturgen, Ellensburg Center, N.Y. 275.00	Robert Askins, Woodhull, N.Y. 1065.00
Caught in PTO—broke thumb	Kicked by heifer—inj. knee
Clarence W. Downes, Cortland, N.Y. 423.56	Audrey Thorsen, Avoca, N.Y. 1417.84
Kicked by cow—broke arm	Fell in driveway—broke hip
Kenneth E. Jones, DeLancey, N.Y. 183.27	Albert E. Thony, Jeffersonville, N.Y. 153.51
Fell off trailbike—broke collarbone	Bitten by dog—broke arm
Elsie I. Rose, Andes, N.Y. 198.56	Dale French, Owego, N.Y. 111.77
Tripped and fell—broke wrist	Knife slipped—cut hand
Donald Bruning, Akron, N.Y. 1750.00	LeRoy R. Brown, Owego, N.Y. 280.00
Thrown by horse—inj. leg	Slipped on grass—broke ankle
Mary Ann Eder, North Collins, N.Y. 1312.50	Esther T. Williams, Newfield, N.Y. 994.65
Kicked by cow—broke back	Auto accident—inj. rib, neck
Leland Southwick, Bombay, N.Y. 1547.56	Richard Hickson, Palmyra, N.Y. 1410.00
Kicked by cow—broke leg	Auto accident—inj. elbow, forehead
Ralph H. Dresser, Batavia, N.Y. 1667.46	Ronald E. Kommer, Palmyra, N.Y. 130.55
Auto accident—broke hip	Fell through barn floor—inj. leg
Richard Kazmierski, Little Falls, N.Y. 709.20	Gordon Bush, Walworth, N.Y. 1105.00
Cleaning auger—broke hand	Yanked by calf, fell—inj. back
Thomas Twomey, West Winfield, N.Y. 653.00	Merle K. Shattuck, Gainesville, N.Y. 1090.00
Auto accident—inj. head, thigh	Repairing chain on elevator—broke feet
Mark Forkey, Depauville, N.Y. 349.91	Donald Heller, Canton, Pa. 1141.43
Fell off tractor and dragged—inj. arm	Caught in corn picker—inj. thumb
Bernice Jewett, Evans Mills, N.Y. 728.23	Amos Rutledge, Tyler Hill, Pa. 250.00
Slipped & fell on cement floor—inj. hip	Kicked by cow—broke leg
Leo Goutremout, Carthage, N.Y. 255.35	Charles E. Osmun, Asbury, N.J. 1700.00
Caught in snowblower—inj. fingers	Fell—inj. knee
John Beyer, Lowville, N.Y. 1313.56	Helen Becker, Freehold, N.J. 1700.00
Fell off truck—broke hip	Auto accident—broke shoulder, ribs
Lydia M. Mellnitz, Castorland, N.Y. 1695.00	Robert Conk, Cream Ridge, N.J. 405.50
Fell—broke back	Ladder collapsed—broke wrist
Chester Knapp, Dansville, N.Y. 301.68	Alice M. Howard, Bernardston, Mass. 1109.34
Load of hay tipped over—inj. leg	Auto accident—broke ribs, inj. knee
Frederick L. Brooks, Morrisville, N.Y. 214.29	Vera M. Barr, Huntington, Mass. 760.00
Concrete went into boots—burned legs	Auto accident—broke leg
Charles L. Pinkney, Webster, N.Y. 1610.00	Charles Anderson, North Anson, Maine 105.00
Auto accident—broke pelvis	Coil spring snapped—cut head
Ralph Sharp, Hilton, N.Y. 813.86	Shirley Sullivan, Cornish Flats, N.H. 1195.71
Fell from ladder—broke heel	Fell thru floor—inj. chest, back
John Rappa, Sprakers, N.Y. 118.56	Harold A. Keyser, Andover, N.H. 270.00
Slipped off step—sprained ankle	Slipped on stairs—inj. chest
Thomas H. Cranston, Wilson, N.Y. 377.14	Hattie G. Ackley, Proctorsville, Vt. 627.49
Elevator dropped—cut hand	Slipped under mower—broke foot
	Roger Wright Stowe, Bristol, Vt. 1295.00
	Hay elevator collapsed—mul. fractures

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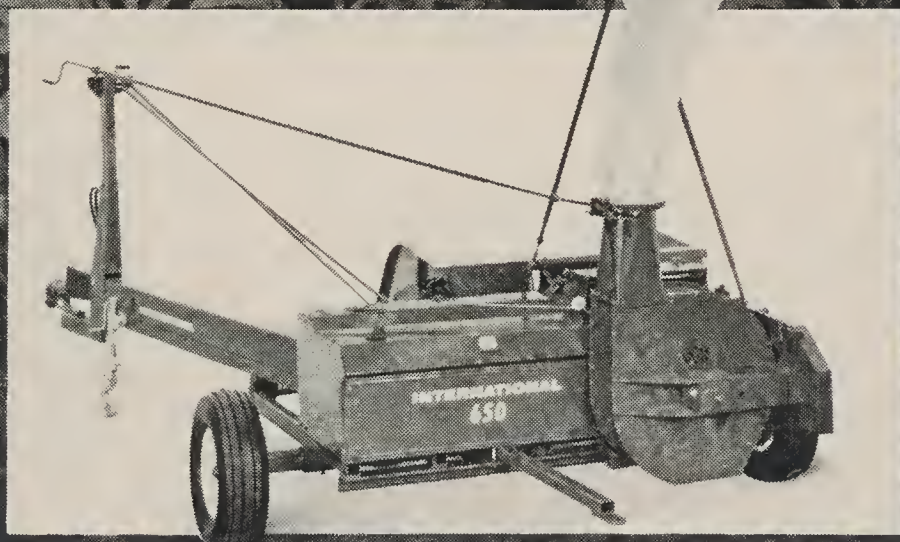
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Mrs. Hiram Mock, Rushville	18.95
(refund on order)	
Mrs. Michael Smith, Utica	4.00
(refund on cards)	
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BINDERY



MAY 1971

American Agriculturist

and the
RURAL NEW YORKER



What's NEW in the FIELD

by W. D. Pardee*

TOP-DOLLAR TIPS FOR ALFALFA

RAINY days in May can hold up planting, shorten your temper, and sharpen your vocabulary. But they also give time to get set for early hay harvest, weevil control and topdressing, all coming right up. Here's a rundown on ideas from both Ag College research and farm experience to help you plan these activities to gain top dollar alfalfa returns.

First off, early-cut alfalfa brings more milk per bale, per ton, or per silo-full. This shows up in feeding trials at Cornell, Penn State, and just about everywhere it's been tested in the Northeast and the nation...and the world, for that matter.

Cutting Management

Big question is not why — but how to cut alfalfa early, particularly with frequent rains through May and June. Best answer for more and more farmers is to store medium-moisture silage in concrete or glass-lined steel silos. Cut early, chopped fine, and wilted to 55 or 65-percent moisture, alfalfa silage or haylage makes excellent feed and produces more milk than drier material.

Silage at this moisture range also seems best from a harvest and storage view, with higher field losses on drier forage, higher storage losses on wetter feed.

Nip The Bud

Best time to start cutting is in bud stage, or at least by first flower in alfalfa. Don't delay until your alfalfa's in bloom to start cutting or you'll lose quality. You'll also reduce second-cutting yields.

Best yields have come when the first cut came off in late May or early June, permitting second cutting to grow during June on spring moisture still in the soil. You'll get lower yields when alfalfa is cut late. Then regrowth must start in July when heat and dry weather frequently reduce growth.

The switch to earlier cutting can mean more than just a switch to medium-moisture silage. It requires complete machinery for efficient mowing, conditioning, windrowing, and handling. So if you're planning to go this way, check your whole system.

It costs money to keep an expensive tractor, chopper and man idling in the field waiting for the boy to come back from the barn with the wagon! Be sure you have enough equipment to move your crop and the wagons to handle it.

*N. Y. State College of Agriculture, Cornell University

After first cutting, wait 40-42 days before taking your second cut. This means fields cut the first week in June can be cut in mid-July and again about September 1. This can provide 3 cuts of high quality hay

with no damage to stand. In long season areas of Pennsylvania, New Jersey, the Hudson Valley, and Connecticut shore line, 4 cuts are possible, starting in late May, with the last cut coming off after frost in October.

Big point to consider now is that you can't get 3 or 4 cuts unless you get your first cut off early. So take advantage of some rainy May days when you can't plant to check your equipment, grease it, check out parts, and have it ready to roll as soon as the crop is ready.

Many farmers who have switched to sowing alfalfa without a companion crop are asking us questions about harvest practices on seeding-year alfalfa. Bob Seaney, Cornell forage specialist, has tested many

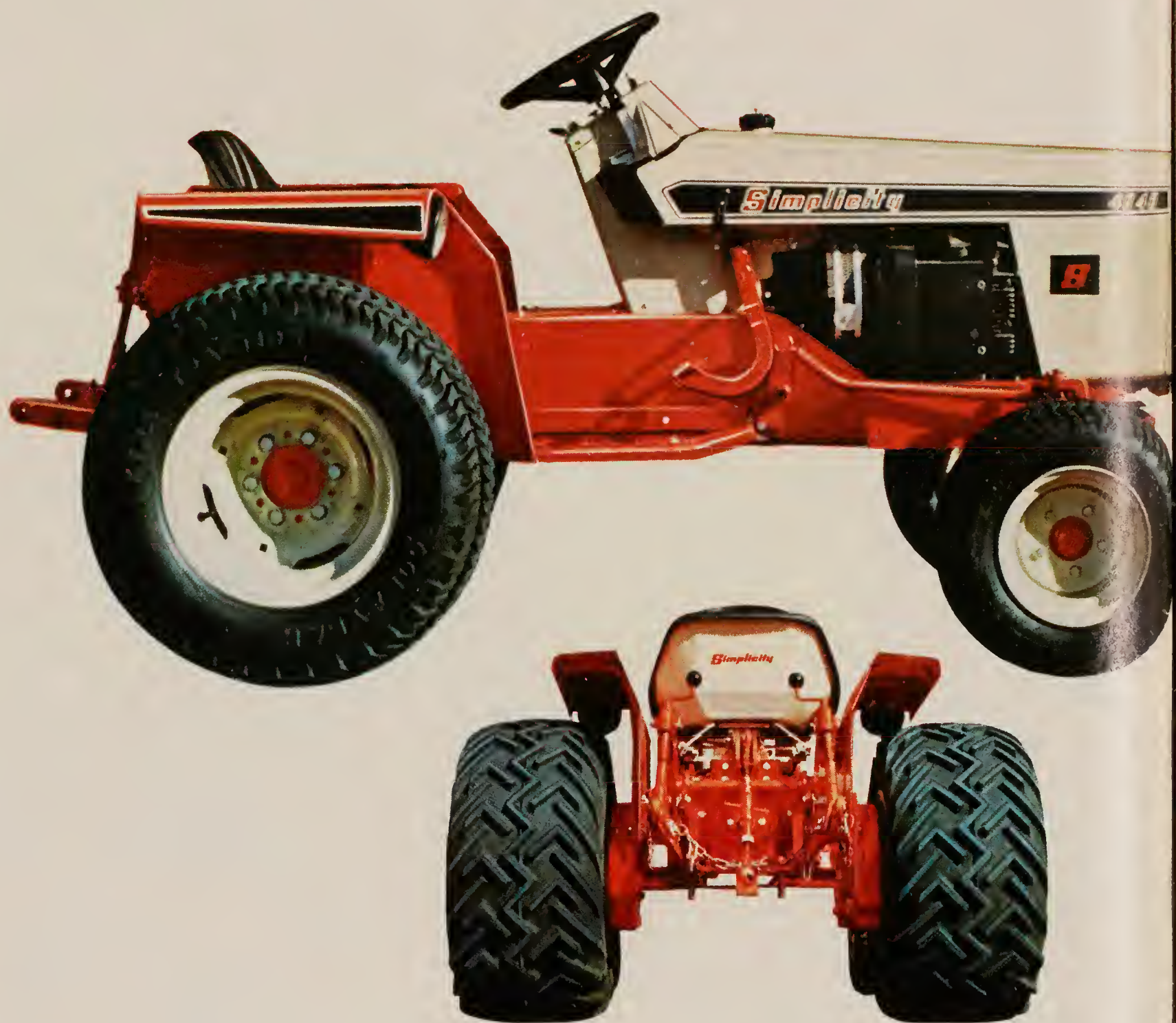
cutting managements on seeding-year alfalfa. He finds two cuts, the first coming in early July and the third in late August, most easy on the stand and yielding 2-4 tons per acre.

But cutting 3 times, even in short season areas in the southern tier of New York, seems possible without harming stands or reducing subsequent harvest yields. Apparently, first year seedings...so tender when started in oats...have plenty of bounce when grown alone.

Alfalfa Weevil

The alfalfa weevil has been a tough customer for years, but it's in trouble. Small wasp parasites of the weevil are controlling this pest in New Jersey, Delaware, Maryland,

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Simplicity

eastern Pennsylvania, and New York's Hudson Valley.

However, in western New York, the weevil can still feed heavily on alfalfa and can be particularly damaging to regrowth of early-cut stands. If you're in a heavy weevil area, you may choose to delay first cutting until mid-June to reduce chance of weevil damage on second growth.

If weevils are thick on your crop before cutting, be sure to apply a stubble spray as soon as possible after forage removal. Weevils can be particularly destructive on crown buds coming forth to produce a second crop. One weevil per bud can do big damage, while mature plants can maintain many larvae without being killed.

For your best local information,

check with your county Extension agent for the present weevil situation in your area. Get in touch with him if you have enough weevils to justify spray. Recommended chemicals show little change from the past several years and most of these are under no new restrictions.

Big story is the parasites introduced by the U. S. Department of Agriculture and the state agricultural colleges . . . and the job these small wasps are doing. Six different species, all with jaw-busting names, are making quick work of the weevil in many regions.

Topdressing

Topdressing alfalfa makes sense, particularly after the first or second harvest. You've heard it before, but

it's a profit-making practice many farmers neglect. Alfalfa needs phosphorus and potassium for vigorous growth. Apply according to soil tests or to your local Extension recommendations.

Best time is after first cut, next best, after second. But the main thing is to, get phosphorus and potassium on. If you missed these two prime times, put it on in fall or spring.

Phosphorus helps continuous growth and regrowth. Potassium is vital to photosynthesis, and helps alfalfa harden against winter temperatures. Alfalfa well fed with potassium will outlive potassium-starved plants in most winters.

Putting it all together, we could come up with a beautiful recom-

mendation for top alfalfa performance. Cut early, store as medium-moisture silage, spray stubble for alfalfa weevil, cut 3-4 times a year at a 42-day interval, topdress after first cutting and stand back and watch the milk flow. Easy to say . . . but you and I know that putting this package together takes planning, organization, and skill to gain healthy crops and high-producing livestock. But isn't this what farming is all about?

ROUND OR MEDIUM FLAT?

Chances are your corn seed is already in your barn, maybe you've even planted some. But we're getting some last-minute questions on round kernels. Seems flat grades of some top varieties are in real short supply, but rounds are available. Questions we're getting is how good are round kernels. The answer is easy, backed by many tests.

Round kernels are just as good as flats, and will produce just as good a crop. Only difference is that you'll need different planter plates to plant them evenly. Choose plates as specified on the tag on the seed bag. Rounds can give you just as good a stand as medium flats, if you plant them right.

If rounds are all that's left of the hybrid of your choice, there's no need to switch hybrids. Switch plates instead, and smile . . . particularly if the rounds cost less.

Here's to good planting weather, and good stands for all your crops!

FIELD RECORD

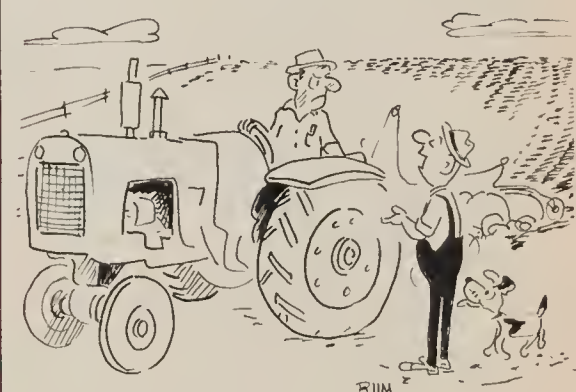
Arnulf and Marten Muller operate the Red Rose Farm on the Quaker Hill Road near Pawling (Dutchess County), New York.

They find a Crop Record Sheet, which they developed, handy for keeping track of what goes on in each field. The headings include a notation for field name, acreage, soil type, and use designation (cropland or pasture).

Below this there are four major subdivisions . . . soil test results, what crops and when planted, fertilization and lime record, and a generous space for remarks on such things as seeding rate and herbicide used. The sheet is punched to fit easily into a three-ring notebook.

Arnulf comments, "They give me a chance to review each individual field history at a glance, and to make decisions for future action."

Human memory . . . especially in a world growing increasingly complex . . . is notoriously fallible. Some simple records on fields will keep management decisions on course. — G.L.C.



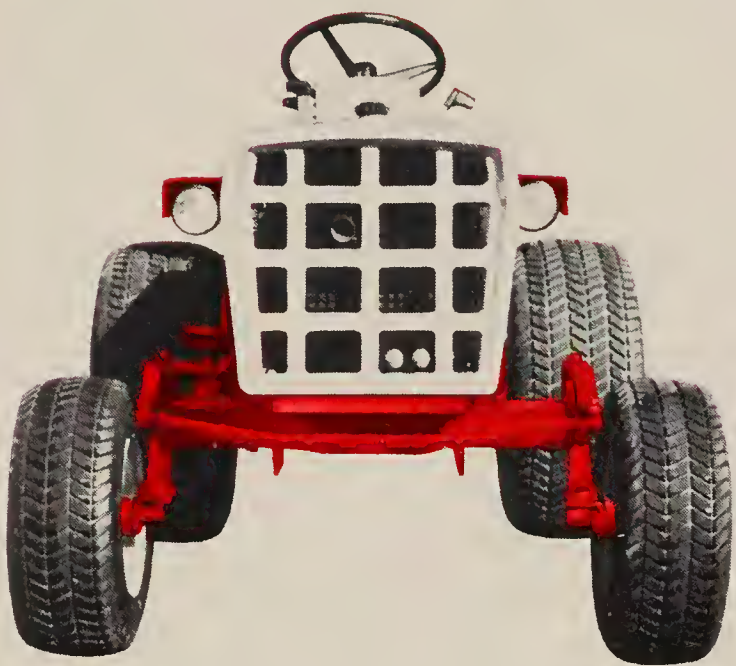
"It seems to do a good job. Now since it's used equipment, how much are you asking?"

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COMPUTER ON THE FARM

by Amos Kirby
New Jersey Editor

THE newest piece of equipment to move to the farm has been the computer. While the computer has been used to process dairy records at Cornell and Penn State, the New Jersey College of Agriculture is devising a computer-based operation for individual crops and even for individual farms.

County agricultural agent Bob

Gardner of Salem has used the computer in developing a yardstick for tomato growers who are wondering whether it will be profitable to use a \$20,000 harvester in place of hand picking.

In recent weeks, work has been done on a computer application for asparagus growers who are attempting to decide whether to buy a

\$7,800 harvester, or to continue hand cutting.

Robert Latimer, of the Extension staff . . . along with others . . . has been compiling data on costs and prices of the marketable product. With this information fed to a computer, the machine can be taken right to the farm and, with data from that operator's records, can in a matter of minutes determine whether the grower can show a profit from the venture.

Plan now underway is to feed sufficient information into the machine to be applied to any of the many fruit and vegetable crops grown in the area.

In time, when sufficient information has been accumulated, it can apply to poultry farms as well as

the small vegetable crops . . . there may be as many as a dozen grown on one farm.

The objective is to help a grower decide if he can show a profit on a particular crop . . . based on a large number of variables, including his labor and other costs.

This computer is about the size of a portable typewriter.

TRUCK INSPECTIONS

The New Jersey Motor Vehicle Division has established new rules on inspection of trucks with a gross weight of 6,000 pounds and more.

This establishes a self-inspection, if proper records are maintained, but eliminates taking the heavy trucks through official inspection stations.

The new procedure calls for daily reports by each operator, plus quarterly checks on 15 points. These records are to be maintained and preserved for one year.

The inspection report covers all brake lines and lining, drive lines, coupling devices, tires, wheels and flaps.

A record is to be maintained on springs, emergency equipment, fuel system, cooling system, lighting devices, horns and mirrors. In addition, records are to be kept on the condition of the transmission system, steering equipment, axles and tie rod assemblies and clutch.

Further reports are to be maintained on exhaust system and exhaust emissions, plus glazing and wipers.

Enforcement still remains with the state motor vehicle agency. This procedure applies to trucks carrying farm license tags. It also places full responsibility on the owner or operator to maintain safety standards that apply to all motor vehicles.

VISITORS

The most controversial question confronting growers in 1971 centers around a proposed law regarding unrestricted visits to workers employed on any farm or labor camp. It is claimed by some, that workers are being denied their rights as citizens if visitors are restricted from coming to the farm.

Farm owners feel that unrestricted access to workers on farms is not wanted by the workers, and that some of these visitors may interfere with the workers performing their tasks. There are many known instances when the workers themselves told operators that they want restrictions on visitors even after working hours.

This writer has compiled a list of official and unofficial groups . . . 18 in all . . . that may come to farms if some restrictions are not established.

Growers have no objection to legitimate visitors after hours, but at the same time, they are insisting that some restrictions be established to prohibit certain groups and individuals from making calls even after working hours.

ROADSIDE MARKET

Speakers at the New Jersey Roadside Market Conference at New Brunswick suggested ample parking space and a neat stand as two of the major drawing cards that induce people to patronize the market.

American Agriculturist, May, 1971

GIVE 'EM THE NEW ONE-TWO PUNCH!

A new combination of two broad-spectrum insecticides, Thiodan and Pyrenone, really socks it to vegetable insect pests.

If the Thiodan doesn't get them, the Pyrenone will. No insect has been found to be Pyrenone-resistant.

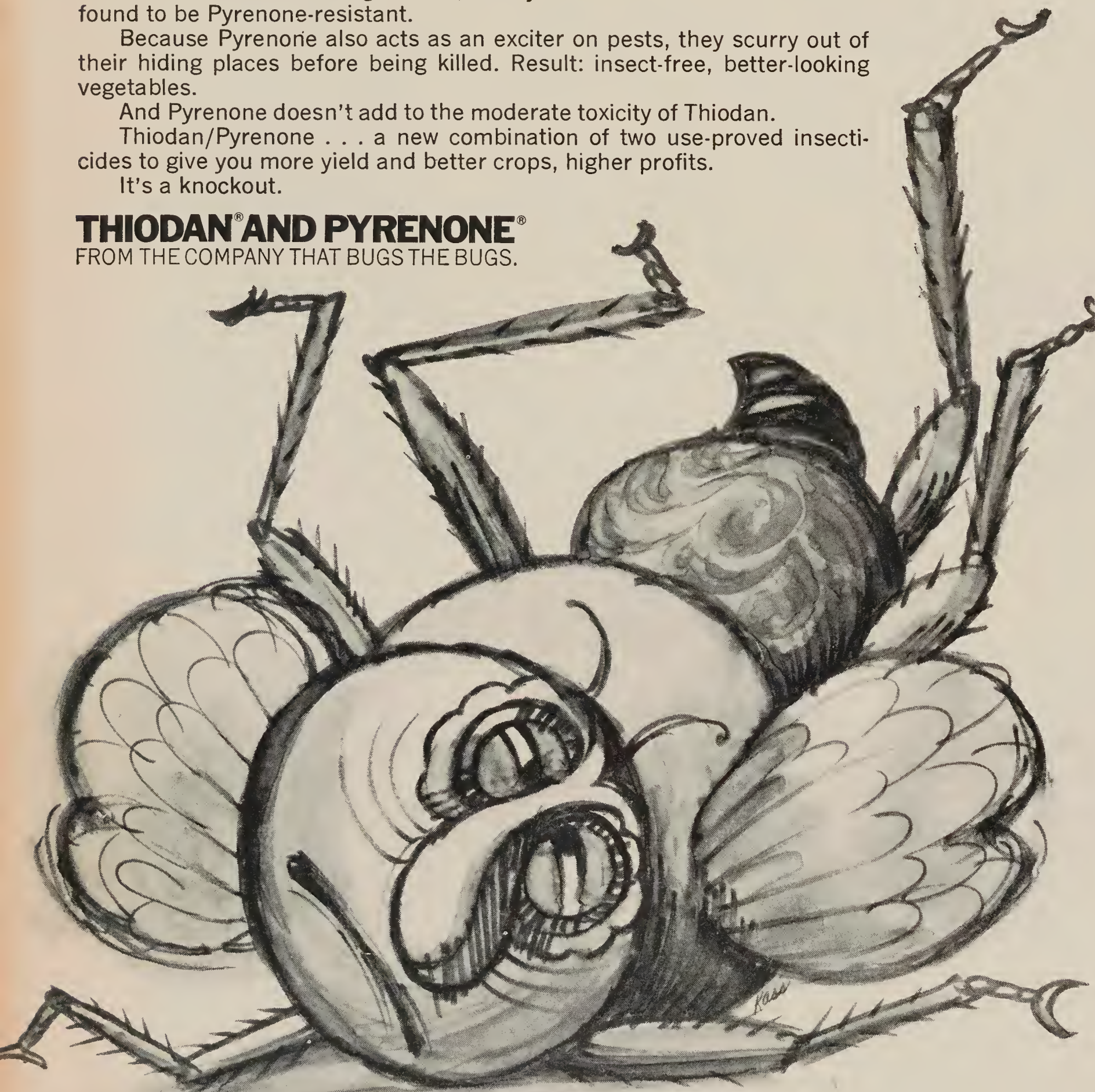
Because Pyrenone also acts as an exciter on pests, they scurry out of their hiding places before being killed. Result: insect-free, better-looking vegetables.

And Pyrenone doesn't add to the moderate toxicity of Thiodan.

Thiodan/Pyrenone . . . a new combination of two use-proved insecticides to give you more yield and better crops, higher profits.

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OUR - COVER

The honeybees have always known that spring would come, regardless of how reluctantly winter may lose its grip. Some mysterious signal is given, and apple blossoms scent the air . . . another crop season begins. Photo: Doris Barker

Gehl "72" Chopper



outcuts, outlasts them all!



Gehl BU 810 Self-Unloading Forage Box. Worm gear drive. Pintle-chain cross conveyor. Full-width safety bar.

Combine versatility, durability and economy . . . you've got three big reasons the Gehl 72 Chopper excels as a profit-maker on your farm.

Here is the unmatched leader of trouble-free cutting and shredding. 39 hard-steel flails cut a big six-foot swath. Masters the thickest stands of standing or lodged crops, even when soaked with rain or dew.

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solves a wide variety of jobs. Simple design and fewer working parts mean less downtime, less maintenance.

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A demonstration of the Gehl 72 Chopper, right on your farm, will prove that we mean what we say. Call your Gehl dealer, or write Rolain Scharbarth, The Gehl Company, West Bend, Wisconsin 53095 (please note if student).

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EDITORIALS

by GORDON CONKLIN



THE SOCKAFELLER STORY

Once upon a time, in the far-off state of Empire, there came to power a man named I. Sockafeller. He was fortunate enough to be descended from a king who had amassed a fantastic fortune, and so he could never understand the anguish of his countrymen about soaring taxes. Each year he called for larger public budgets in Empire, saying that it should be the leader in all things . . . including taxes collected per person.

Now it came to pass that Governor Sockafeller sensed that the voters were getting fed up to their very eyeballs with the free-spending ways of their leader and his merry men. Passing this word to his speech-writers, he began to make eloquent statements about "living within our means" . . . "tailoring commitments to resources" . . . and other fiscally-conservative phrases.

"Forsooth," cried the people, "he hath changed his spots. He soundeth even as one of us who must make his spending fit his limited income."

A great Choosing Day came, and a majority of the people rallied once more to the banners of their engaging Governor . . . breathing a sigh of relief that he no longer smoked the locoweed of extravagance.

Alas! Securely entrenched in power for another four seasons, I.S. embraced once again his more-fashionable habit of socking it to the peasants whose blood and sweat created the wealth that filled the coffers of the State. They protested bitterly for a time, but then turned of necessity to the daily toil of earning enough to support their families . . . as well as those living in the public housing project called Sherwood Forest.

There are two morals to the story, and both are as old as mankind itself:

— Words are cheap and nebulous, but taxes are expensive and for real.

— To be effective, taxpayer protests must continue undiminished until after the celebration of the Last Supplemental . . . that ancient and joyous ritual whereby tax cuts made in public are restored in private.

BETTER LOVERS

The dairy industry has for many years depended on the slogan, "Milk is nature's most perfect food." Useful though it was for many years, its impact wanes amidst the growing affluence of our time. The response, "so what else is new," became mixed with ho-hums as a standard reaction to the time-worn words.

While browsing through the February, 1971 issue of the Orange County (New York) Farm News, I saw a new tack in dairy promotion. In bold words appeared this advice, "Butter Eaters Are Better Lovers."

It's about time the dairy industry began to recognize that what is *thought* in "nice society" to motivate people may be very much different than what really motivates them.

The automobile people advertise so that prospective purchasers become convinced that a new sports car will transform them into irresistible swingers. A man's deodorant is portrayed as a magic key to the boudoir of every beautiful girl in the land. The toothpaste is shown as luring handsome men by the dozen to crush the sweet young thing with passionate embraces.

Most of this is pure baloney, of course, but it

sells automobiles, deodorants, toothpastes, and many other items. Whether butter will really enhance the love-life of those who eat it is debatable . . . and probably never will be scientifically researched . . . but the new slogan has real potential in stimulating butter sales.

After all, the American Heart Association has never really proven its case that butter clogs the arteries . . . but millions of Americans have switched to the low-priced spread on the chance that the AHA may be right.

There is no proof that butter will stimulate l'amour or fire up the hormones, but millions of Americans would give it a whirl . . . on the chance it might work!

How about a TV commercial showing a passel of handsome young bucks, each reporting, "I came back . . . to butter-cream!" And the pretty girls would follow with, "And are we glad they did!"

NUTRIENT CONSERVATION

Across the whole country, a vast number of meetings are being held on agricultural waste management. I've attended a number of them . . . learned a lot . . . and have also been confused at times.

It seems that the word "waste" crept into the scientific jargon in reference to animal farming because scientists were too inhibited (polite, they claim) to use more descriptive words such as manure. A waste product is something deemed worthless . . . to be discarded and disposed of as economically as possible.

The use of commercial fertilizers . . . in the dry, liquid, or gaseous form . . . has grown by leaps and bounds over the last 20 years. In the process, some people began to think of animal manures as being worthless in terms of plant nutritive value.

Farmers and gardeners have always known otherwise, but they also recognized that chemical formulations of fertilizers are often cheaper than manure in terms of cost per pound of plant nutrient applied. However, it's long been known that manures enhance the organic matter content of soils and thereby improve their tilth . . . in addition to imparting some of each plant nutrient in the "tillage trio" (nitrogen, phosphorus, potash).

These benefits, plus the present fever pitch of interest in the environment, make manure management of special importance to farmers in 1970's. Ecologists speak solemnly of "recycling waste," but farmers have been doing this for generations . . . and called it spreading manure.

Friend Gil Porter of Agway has a good term for the process when he advocates "agricultural nutrient conservation." This implies not only putting the nutrients in manures back on the soil where they will grow another crop . . . but doing so in a fashion that will keep most of them there.

When all the smoke of battle over environmental quality blows away a bit, it appears that the single most important objective farmers should pursue to prevent environmental pollution is to practice what they've known about for years . . . good soil conservation. Put those "wastes" . . . that are in reality very useful additions to the soil . . . on the land in a way that minimizes both odors and runoff.

And, then, as the Good Book says, that stone which the builders rejected will become the head of the corner . . . transformed from the "waste" that to some might be a rejected in-

SUNDAY ECONOMIC BAROMETER

The voice in our collection plate
Has changed its language here of late,
Our treasurer confirms my guess;
It rattles more and rustles less.

— D. A. Hoover

convenience into the luxuriant golden mantle of an autumn harvest.

GOOD MOVIE

A new movie has just hit the streets that does a great job of portraying the tremendous contribution that agriculture makes to the economy of the industrial Northeast.

Entitled, "Roots of Empire," it is intended primarily for non-farm audiences, but it's also sure to be popular with farm folks as well. The photography is superb, and the message is compelling.

A lot of New York people and organizations brought this to pass . . . including the Agricultural Resources Commission, the Council of Agricultural Organizations, the College of Agriculture, the Department of Agriculture and Markets, and the Commerce Department. Elmer Phillips (a recent retiree from Cornell University), and Don Brown of Niagara Mohawk were instrumental in getting the job done. As with all worthwhile projects, there were many others that helped carry the ball . . . the ones mentioned lugged the leather most often.

For details on scheduling the 28-minute, full-color film, contact:

William Bensley
Executive Director
Agricultural Resources Commission
Building 8
State Campus
Albany, New York 12226

or

Professor William Ward
Communications Arts
307 Roberts Hall
Cornell University
Ithaca, New York 14850

GUEST EDITORIAL

OPERATION ECO-PERSPECTIVE

The environmental game has become our great national pastime. According to the rules: I name an environmental problem; you propose a solution; I tell you how the solution pollutes the environment; you provide a solution to the pollution problem; I point out how your solution in turn pollutes the environment . . . and so on. The game is endless and any number can play. — *Boysie E. Day, Associate Director of the Agricultural Experiment Station in California.*

THAT REMINDS ME . . .

A not-so-young bachelor farmer visited his doctor for an annual checkup.

The doctor looked him over carefully, checked him out with all the instruments, and finally sat down in his office for a report.

"John," the doctor began, "I want you to lay off the liquor and tobacco. Also, I'd recommend cutting down on your social life . . . more bluntly, leave all those good-looking gals to the younger fellows."

"Gee, Doc," John asked, "will that guarantee that I'll live longer?"


Doc sighed and replied, "Nope, but it'll sure seem that way!"

American Agriculturist, May, 1971

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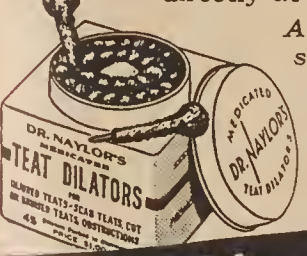


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LIQUID WRENCH

LOOSENS RUSTED BOLTS
NUTS & PARTS IN SECONDS



American Agriculturist, May, 1971

LIVESTOCK



Draft Horses—The New York State Draft Horse Club is sponsoring a plowing contest and chicken barbecue on Sunday, May 16 at the John Beard Farm, on the East River Road near East Homer (Cortland County), New York ... starting at 11 a.m. and continuing through most of the afternoon.

Classes include the three-horse sulky plow, two-horse sulky and walking plow, log pulling contest, and two-bottom gang plow.

Direct questions to John Briggs, telephone 607-273-3397.

Sheep Handbook—One of the publications put together for sheep producers is the new **Sheepman's Production Handbook**. Prepared by George Scott, of Colorado State University, in cooperation with the Sheep Industry Development Program and the Extension Service, the handbook covers all phases of sheep raising ... genetics, reproduction, health nutrition and management.

The book is available at \$6.50 per copy from: Sheep Industry Development, Inc., 200 Clayton Street, Denver, Colorado 80206.

Quick Test—A new service for horse owners, a 48-hour diagnostic test for equine infectious anemia (swamp fever), is now available from the New Jersey Department of Agriculture. Detection formerly took from three to five months and was very expensive. Cost of the new test, which was developed by Dr. Leroy Coggins of Cornell University, is \$5 per sample for New Jersey horses and \$10 for out-of-state samples.

To take advantage of the new service, contact your veterinarian. He'll take a blood sample and send it to the diagnostic laboratory.

Steer Summary—Carcass data and appropriate summaries on 94 steers are included in a study released by the Animal Industries Department at the University of Connecticut, Storrs, Connecticut 06268. Data on these animals ... all exhibited at the 1970 Eastern States Exposition ... will be of considerable interest to beef cattle breeders. If you'd like a copy, write to Dr. W. A. Cowan at the above address.

Healthier Pigs—Bred gilts on a high-energy ration that included a swine-worming product called dichlorvos farrowed more and healthier pigs than bred gilts on a low-energy diet that also included the same compound.

So say researchers at South Dakota State University, where the gilts were fed dichlorvos in conjunction with either a high-energy or low-energy diet for 21 to 30 days before farrowing. Birth weights were not affected by the different gestation treatments.

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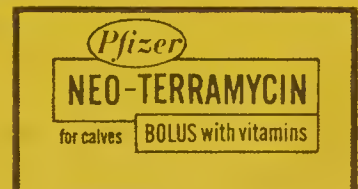
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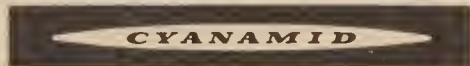
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Food For The Spirit



by Robert L. Clingan

THE IMAGE

ON THE COIN

Out of the accounts in the Bible of the last week of Christ upon the earth comes a fascinating story of an attempt to entrap him. The Pharisees and Herodians, religious and political leaders who had little use for each other, combined to destroy the leadership of Christ.

They tried to impale him on the horns of a dilemma. They asked him whether they should pay the silver shekel, required as poll tax, to the hated emperor and empire of Rome. If he said to pay the tax he would lose his audience; if he said to refuse to pay, they would report him to the Roman authorities and have him tried for conspiring against Rome.

Sophisticated

At this point, Jesus proved himself most sophisticated. He very disarmingly asked if anyone had any of these coins. Someone produced one, for this was the silver coin with which most of their business was done.

His enemies of Jerusalem likely thought of him as a "hillbilly" from Nazareth. He played the part of ignorance they had expected him to play. He asked, "Whose picture is on this coin . . . and whose inscription?" They answered "Caesar's picture and Caesar's name."

Jesus answered, "Give Caesar that which is his." You see, it was with Caesar's coins that they transacted much of their business; Caesar had minted the coins by which their economy operated; Caesar and his legions maintained the order within which they could live in relative safety; Caesar and his representatives maintained the roads by which they all traveled. Surely they owed something to Caesar for all the services of the empire, even as we owe federal and state governments for the many services our society has compelled government to give.

New Level

Then he moved the controversy to a new level. He continued the logic of his first statement with a second. He said, "Give God that which is his."

A superficial examination of this dialogue would suggest that there is a dichotomy of life . . . that there are things which we owe to the state, and other things that belong to God.

This cannot be. We do owe the state something for the services we receive from it; we owe our fair share of tax support; we also owe intelligent citizenship . . . and even the exercise of critical judgment.

All Creation

Just as the coin bore the picture and inscription of Caesar, all creation bears the mark of the hand of the Creator. Every human being is created, according to the Bible, in

(Continued on page 9)

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American Agriculturist, May, 1971

PLANTING BY AIR

FROM the title, you might think this story is about an agricultural innovation that has been tried without engendering much enthusiasm . . . that is, seeding a field from an airplane. Not so!

It's about an entirely new concept in planters . . . one that uses air pressure to meter and deliver corn, soybean or milo seed into the furrow with a level of accuracy not previously available in any planter using ungraded seed.

Introduced by International Harvester Company and named the 400 Series Cyclo planter, it has only three moving parts . . . a pto-driven blower, a ground-driven drum, and two rubber cut-off wheels.

The new planter, which was invented by two Minnesota farmer-brothers and further refined and developed by IH engineers, offers many rate settings for exact seed population. It can be conveniently changed from one crop to another by simply removing one nut and changing the seed drum. There are no plates or pick-up fingers to change.

Two Models

The Cyclo planter will be available in a 4-row model with 34 to 40-inch spacing . . . and a 6-row trailing model with 28 to 30-inch spacing, convertible to a 36 to 40-inch spacing.

The 400 looks like a conventional planter with a solid welded frame and hitch, with either runner or double-disk openers. There the similarity ends, for in the center and above the planting units is a single, 11-bushel fiberglass hopper, flanked on either side by fiberglass fertilizer tanks.

Mounted to the rear of the planter and below the hopper is a drum with evenly-spaced rows of dimpled pockets . . . 6 rows of pockets in the 6-row planter, 4 rows in the 4-row planter.

The blower is between the master hopper and the drum. The hopper gravity-feeds seed into the drum and the blower charges the drum with air. The air tries to escape through the holes in the side of the drum, and as it does so, it carries a seed into each of the dimpled pockets and holds it there.

As the drum revolves, rubber

wheels at the top cut off the air, releasing the seed, which is then ejected by air pressure into the seed tube and through the tubes into the furrow.

If more than one seed is carried into a drum pocket, a brush mounted inside the drum brushes away the extras.

All rows are planted at the same time. There is no bounce or scatter of the seed. Spacing and population is precisely determined by the ground-related speed of the drum.

The Cyclo planter is priced at about \$90 per row more than standard IH planters.



International Harvester's new 400 Series CYCLO planter.



Why this one stands alone as the Sorghum-Sudan for you.

Sudax Brand is the original sorghum-sudan-grass hybrid. Perfected by DeKalb research, it offers you seed quality and uniformity necessary for top performance.

And Sudax Brand hybrids are custom-bred for your climate and growing conditions. Take ST-6. It's the first sorghum-sudan that's pollen-free. ST-6 won't set seed in isolated fields. You grow a carefree forage crop.

Sudax Brand also recovers fast from cutting or grazing. And this regrowth of thick,

lush leaves shades weeds as it outgrows them. Your profits grow right along with Sudax Brand.

Finally, you get a big tonnage from a few acres. It'll help you produce more pounds of milk at lower feed cost, and maintain production during hot summer months. Use it for pasture or green chop. There's nothing else like Sudax Brand. See your DeKalb dealer for the original sorghum-sudan-grass hybrid that stands alone in quality.

"DEKALB" and "SUDAX" are registered brand names. Numbers designate varieties.

DeKalb Sudax Brand belongs on your farm

Clingan (Continued from page 8)

the image of God. All of life ultimately belongs to God and is to be accountable to Him. We owe Him our worship, our obedience, and our service. Someone has said we are not truly ourselves until we belong to Him. St. Augustine put it, "Thou hast made us for Thyself, we are restless until we find our rest in Thee." All of us, even Caesar, owe God all we have and are, and all of our life must bear tribute to Him.

A portion of our life belongs to the state, to be returned through our own exercise of citizenship and judgment. All of our life, even that part of it we owe the state, belongs to God, in whose image we have been created.

American Agriculturist, May, 1971

"I didn't know the round-bale people



had built such a line."



They made a lot of hay with those round balers. And a lot of friends. But, some people said, "Square bales stack better." So Allis-Chalmers is really going after the square bale business.

"I got quite a surprise when I found out how far Allis-Chalmers had moved.

"They've got a tough line going there...everything a man needs to make high-quality hay.

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"But what really sold me was their twin-feed rake. I'm convinced I'm saving leaves. And I know I get a firmer bale.

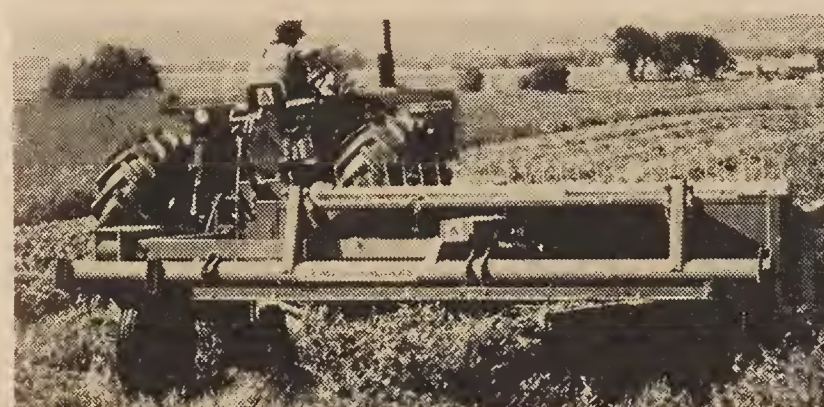
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Because he wants to grow with you.

We can help you grow.



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Water dowsing...

SCIENCE OR SORCERY?

by Mary Craig

THE practice of water witching or water dowsing... that is, using a forked twig or "divining rod" to locate underground water... has been arousing controversy for centuries.

Champions of the procedure often explain it as having to do with gravity and magnetism or electrical impulses. Adversaries are apt to claim that the Old Nick himself sets up the forces that cause the twig to twitch in the hands of the user. Scientists have no generally-accepted explanation for the phenomenon.

In a recent issue of *AMERICAN AGRICULTURIST*, garden, column editors Doc and Katy Abraham asked readers to comment on their experiences with water witching, and they received some interesting observations. Many of those who wrote claimed to be successful dowsers themselves, or to have one in the family or close neighborhood. Few had any explanation for how it works except that it must be a gift of God.

Milan Knox of Thomaston, Connecticut, has been dowsing for 35

years, using a forked stick cut from an apple tree. He works with a local well driller who "never ceases to be pleased with the results," according to Mrs. Knox.

"Nevertheless," she adds, "there are the usual number of skeptics and many of them will call my husband a faker right to his face. Yet, when other methods have been used, they will call him back to try his way and while they don't understand, they are happy with the results."

Emory V. Seaman of Dalmatia, Pennsylvania, dislikes the term "water witching," says it's a God-given power and should be treated accordingly. Mostly he uses a Y-shaped stick from a green tree, but claims that a large pair of pliers... 10-12 inches... will work. Sometimes he

uses a pair of metal rods 3/16-inch in diameter and 25 to 30 inches long, each of them bent at right angles for a handhold.

A Swinger

When he has found the exact location of the water, he places at the spot a partially-filled glass of water, then ties a foot-long silk thread to a brass button and slowly lets the button down inside the glass, slightly above water level.

The button begins to move like a pendulum, hitting both sides of the glass with a ringing sound. He counts the strokes on only one side of the glass to determine the depth of the well... approximately one button-stroke per foot of water.

Herbert Griesemer of New Ringgold, Pennsylvania, also tells of this method, but using a penny instead of a button. The penny clings to the side of the glass. After it is pulled away, it will cling again, but only a certain number of times. The number, multiplied by 3 is, supposedly, the approximate depth of the well.

Donald Stoughton of Lyons, New York, found a good well site with 30-inch lengths of brass welding rod. By applying the rule of "10 feet down for every foot after the rod first starts to turn," he estimated that he'd find water at 60 feet. His new drilled well is 68 feet, the last 43 through solid rock.

Electron Flow

Mary M. Listwak of North Branch, Michigan, locates tiles, septic tanks, seepage beds and underground water supplies, but with wires instead of a forked stick. She believes that the natural flow of electrons in an electro-magnetic field uses the body as a travel agent.

She feels that when people do not have the power to locate water, it is because their electrical impulses repel, rather than transmit the electrons.

Vera D. Willard of East Burke, Vermont, is not a dowser but lives in an area where dowsers are accepted and hired in good faith by most people looking for a water supply.

The National Water Dowsers Convention is held a few miles from her home. She has attended these meetings several times and has been impressed by the caliber of people there... scientists, college professors, top businessmen.

They are there not to doubt the ability of some people to find unseen water, but rather to explore it and explain it. There are skeptics, of course, but she reports they don't remain skeptical for very long.

Instinct

Her own theory on the matter is a simple one that all animals have the inherent ability to find water, and man is no exception. Because of civilization and the progress of science, however, he no longer needs to use that part of his brain which told him how to accomplish this act. Some have kept this ability; in most of us it appears to be lost, though there are those who say this dormant potential can be reactivated in anyone who will concentrate and try.

(Continued on page 13)



David Brown Traction Control Comes To Grips With Any Terrain

Traction Control (TCU) was the logical outgrowth of David Brown hydraulic lift and three point linkage developed in 1937. In 1954 a traction control system (TCU) was patented by David Brown and incorporated as standard equipment. This was a weight transfer system which hydraulically transferred weight from pull type implements to the tractor's rear wheels increasing traction through reduced wheel slippage... a tremendous advantage. Yet today only a few American tractor manufacturers are incorporating similar systems and then as an extra cost option. David Brown has offered it as standard equipment since its introduction.

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FORESTRY



Smaller 2x4 — That piece of lumber commonly known as a 2x4 has never been 2x4, and now it has been made even smaller. New standards for green wood say that a 2x4 shall be 1-9/16 by 3-9/16 inches, and 1½ by 3½ for dried wood.

The old standards were 1½ by 3½ for both green and dry wood. Lumber with a maximum moisture content of 19 percent is considered dry; above 19 percent is considered green.

The old and new-sized lumber may both be on the market at the same time. If you have building plans that call for the old sizes, be sure you either buy the old size, or modify your plans to conform with the new sizes.

Sorcery

(Continued from page 12)

"The many and varied divining rods . . . forked sticks, wires, pendulums . . . have nothing to do with the awareness of water under the ground," she says. "As the dowser's brain registers water, his muscles tighten involuntarily and the rod points or swings. The rod is merely visual proof that he felt the presence of water and his body reacted to it."

Satan

Mrs. Neal Gockee of Rome, New York, grants that there are people who can find water, but believes that Satan influences the movement of the locating device. She offers Deuteronomy 18:10-12 as proof that such magical practices are forbidden to Christians in the Bible.

C. Mahlon Gressley, of Natrona Heights, Pennsylvania, recalls his first vivid experience in the "mystery" over 30 years ago, when his brother Dwight found a supplementary source of water for the owner of a roadside restaurant and motel. More recently, he located a well which now supplies the Gressley's famous resort and ski area with seven gallons per minute of pure, cold water.

Goofed

Another resort owner, however, was not so fortunate. The dowser "went with her twig all over the place," followed by some 50 curious onlookers. Two of the guests even got themselves forked twigs and claimed they could also feel the pull of the underground water.

When water was located, the resulting well, at 300 feet, produced only "enough water to cool the drills." At 652 feet . . . and one gallon of water per minute . . . drilling was halted.

This resort owner's opinion of water witchers is understandably acid: "They've all got lead in their boots, and spaghetti and meatballs in their brains."

Many people, though, feel about like the farmer who was asked whether he believed in water witching. "Well, yes and no," he replied. "Yes, because it appears to be successful so often. No, because it's impossible!"

American Agriculturist, May, 1971

Grow Your Own — With the present concern about the potential shortage of oil and gas fuels, the rural landowner might well investigate the possibility of a home-grown heat supply from a nearby woodlot, comments Fred E. Winch, conservationist at the NYS College of Agriculture. Wood is far more efficient for heating than most believe, particularly in a well-constructed fireplace or one of the new thermostatically-controlled furnaces which require firing only once or twice a day.

There are also wood-oil combination furnaces, where wood is used as the usual fuel, but if the family must be away for two or three days, the unit automatically cuts into the oil supply and continues to heat the house.

Lists of equipment for making wood fuel, and one of wood burning units, may be obtained from the Department of Conservation, College of Agriculture, Cornell University, Ithaca, New York 14850.

Tree Ban?—The Christmas tree . . . along with motherhood and other previously venerated institutions . . . seems to have fallen into ecological disfavor. After years of being lauded as a great enhancer of the environment, the Christmas tree industry is getting its lumps in three areas of concern: 1) use of chemicals in producing the tree 2) the allegation that a tree in the home is a fire hazard, and 3) disposal of the used tree.

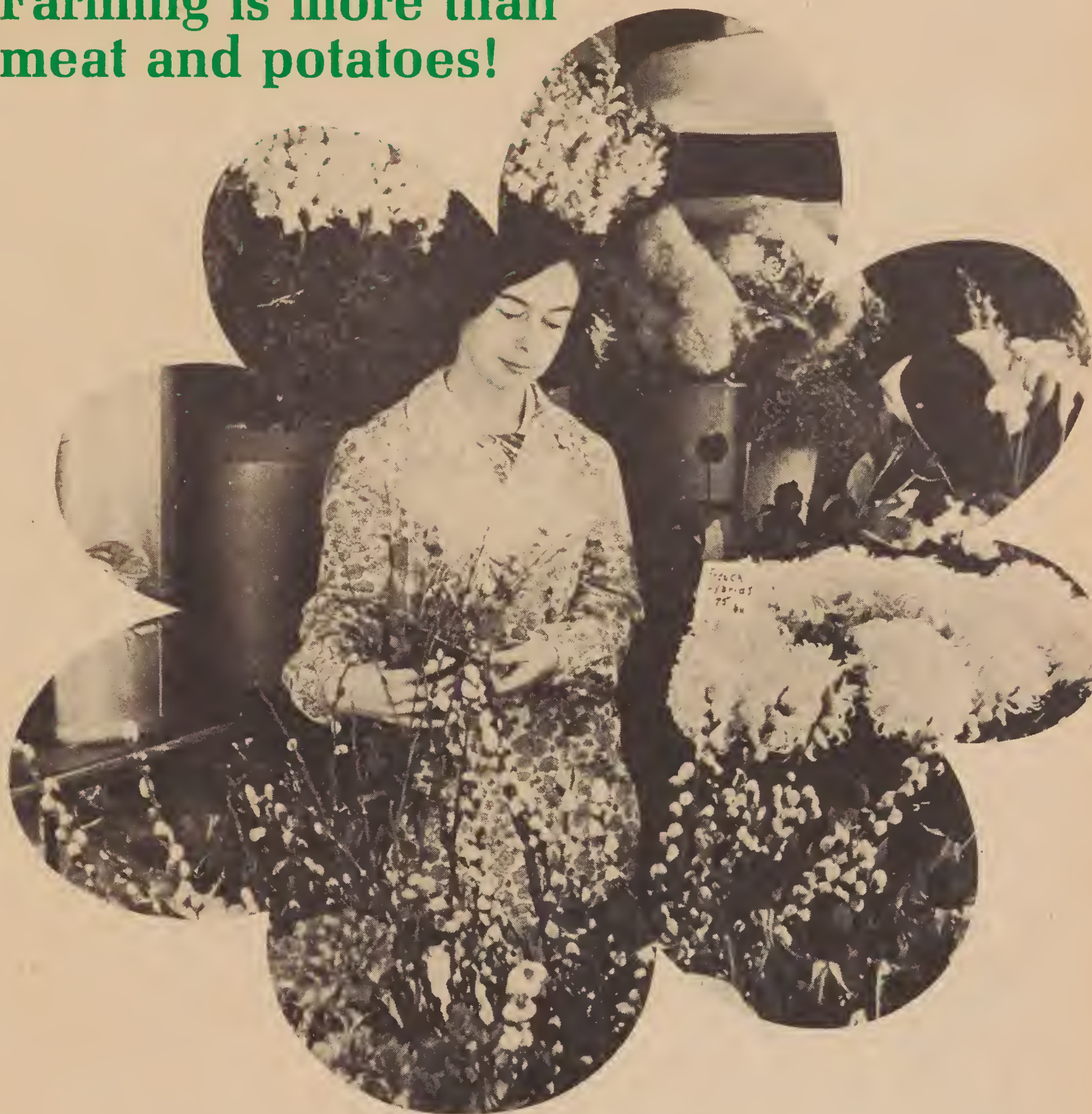
Knottiest problem may be dis-

posal. Millions of used trees have to be picked up and disposed of each year. A few cities already refuse to pick up trees and others threaten to follow suit; some charge a special fee (ranging from \$2 to \$5) for pickup.

Not a pleasant problem, to be sure, but one that Christmas tree growers recognize and are working to solve.

The average American, in a life-span of 70 years, uses 26 million tons of water, 21,000 gallons of gasoline, 10,000 pounds of meat, 14 tons of milk and cream, 9,000 pounds of wheat, and great quantities of other products from the earth.

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HORSE JUDGING CONTEST



FIVE pictorial judging classes were published in the February, 1971 issue of the AMERICAN AGRICULTURIST in a contest that officially closed on April 15. Competition was open to residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania.

Professor Melvin Bradley, University of Missouri, Columbia, Missouri, made the official placings in the contest classes and prepared the scoring key and written reasons in collaboration with Professor H. A. Willman, Emeritus of Cornell University, Ithaca, New York, and Professor R. M. Jordan of the University of Minnesota, St. Paul. The horses were judged solely from the pictures.

Special thanks are extended to all of the horse owners who, as a cooperative gesture of good will and as a means of furthering improvement in the light horse industry, made their horses available for the pictures, all taken by H. A. Willman.

Class 1

We placed this class of ponies 1-2-4-3. In a close placing, we liked 1 over 2 on overall balance. No. 1 stands a bit straighter on the front feet, is stronger in the coupling, and is a trimmer pony that is longer, cleaner and leaner in the neck and throatlatch.

We grant that No. 2 shows more muscling in the forearm and through the quarter and stifle, but criticize 2 for toeing out in front and for lacking the symmetry of 1.

In the middle pair, we placed 2 over 4 very easily, going to a cleaner-cut, more stylish, more nicely-balanced and trimmer pony that has more character. No. 2 also stands on a larger foot, has more substance of bone, and shows more overall muscle expression than 4.

We grant that 4 stands a little straighter on the front legs, but criticize this pony for being heavy and thick about the front end and neck and for lacking the style, sharpness and balance of 2.

In the bottom pair, we placed 4 over 3 primarily because 4 shows more style, quality and character than 3. No. 4 is also cleaner about his bone and joints, and shows more strength of top and levelness of croup than 3.

We grant that 3 is cleaner in the neck and sharper at the withers, but we fault this pony and place him last because he lacks quality throughout, is rather plain-headed, too steep in the croup and too straight in the shoulder.

Class 2

We placed this class of horses 1-3-2-4. In a rather close placing, we liked 1 over 3 because 1 is a more athletic horse that shows more muscle expression in the forearm and through the quarter. No. 1 also stands straighter and stronger on the hind legs, and is longer and more level through the croup than 3.

We grant that 3 stands wider up front, and shows more character about the head, but fault this horse for lacking the overall muscling, the substance of bone and the correctness of hind-leg set found in 1.

In the middle pair, we placed 3 over 2 because 3 is a taller, more upstanding, modern type of horse than 2. No. 3 also is higher and sharper in the withers, stronger in the top, has a longer and leaner neck and shows more character about the head than 2.

We grant that 2 is longer in the underline, and stands more correctly behind, but criticize this horse for lacking the muscling, the strength of back, and the style and character of 3.

In the bottom pair, we placed 2 over 4 because 2 is a more stylish, more nicely-balanced horse that is more refined about the joints. No. 2 also shows more overall muscling than 4, especially through the forearm and stifle.

We grant that 4 is stronger-topped, and has more slope to the pasterns, but criticize him for being rough, coarse and plain about the head, neck and underpinning. No. 4 lacks

the balance and muscling of the horses placed above him.

Class 3

We placed this class 4-2-3-1. We liked 4 over 2 because 4 is a taller, more upstanding horse that shows more overall size and scale. No. 4 is a more stylish horse that shows more character about the head and more muscling in the thighs. No. 2 lacks 4's frame, scale and balance.

In the middle pair, No. 2 is an easy winner over 3 because of more style, balance and structural correctness. No. 2 is longer, leveler and more nicely turned in the croup, longer and cleaner in the neck, and shows more forearm and stifle muscling.

We criticize 3 for being steep in the croup and for lacking the sharpness, style and balance of 2.

In the bottom pair, we easily placed 3 over 1 because of general type correctness. No. 3 is a trimmer, more stylish horse that shows more balance and quality throughout. No. 3 also stands much more correctly on the hind legs as viewed from both the side and rear.

We fault 1 for being too sickle-hocked, coarse, plain, off-type and drafty-appearing in conformation to place higher in this class.

Class 4

We placed this class of horses 2-3-4-1. We liked 2 over 3 because 2 is a larger-framed, stretchier horse showing more muscle expression throughout. No. 2 is more nicely turned over the croup, is longer in the underline and stands straighter on the rear legs than 3.

We grant that 3 has more length and slope to the pasterns than 2, but criticize 3 for lacking the overall stretch, balance, style, character and muscling of 2.

In the middle pair, we easily placed 3 over 4 because 3 is of more modern type. No. 3 has more overall balance, is longer and leaner in the neck, shows more alertness and character, and has more slope to the rear pasterns than 4.

We grant that 4 is more prominent in the withers, but criticize this horse for being rather cresty and thick in the neck and throttle, short in the croup and for generally lacking the size and scale of 3.

(Continued on page 16)

SCORING KEY

Each class has 24 possible variations in arrangement of individual horses from top to bottom of the class. Each variation is listed, along with the number of points to be scored for that choice. For example, if you arranged Class 1 as 1-4-2-3, then your score for that class is 41 points.

Class 1	Class 2	Class 3	Class 4	Class 5
1 2 4 3 50	1 3 2 4 50	4 2 3 1 50	2 3 4 1 50	1 3 4 2 50
1 2 3 4 47	1 3 4 2 45	4 2 1 3 42	2 3 1 4 45	1 3 2 4 46
1 4 2 3 41	1 2 3 4 43	4 3 2 1 47	2 4 3 1 44	1 4 3 2 44
1 4 3 2 29	1 2 4 3 31	4 3 1 2 36	2 4 1 3 33	1 4 2 3 34
1 3 2 4 35	1 4 3 2 33	4 1 2 3 31	2 1 3 4 34	1 2 3 4 36
1 3 4 2 26	1 4 2 3 26	4 1 3 2 28	2 1 4 3 28	1 2 4 3 30
2 1 4 3 49	3 1 2 4 48	2 4 3 1 46	3 2 4 1 47	3 1 4 2 46
2 1 3 4 46	3 1 4 2 43	2 4 1 3 38	3 2 1 4 42	3 1 2 4 42
2 4 1 3 39	3 2 1 4 39	2 3 4 1 39	3 4 2 1 38	3 4 1 2 36
2 4 3 1 26	3 2 4 1 25	2 3 1 4 24	3 4 1 2 24	3 4 2 1 22
2 3 1 4 33	3 4 1 2 29	2 1 4 3 23	3 1 2 4 28	3 2 1 4 28
2 3 4 1 23	3 4 2 1 20	2 1 3 4 16	3 1 4 2 19	3 2 4 1 18
4 1 2 3 31	2 1 3 4 34	3 4 2 1 40	4 2 3 1 35	4 1 3 2 34
4 1 3 2 19	2 1 4 3 22	3 4 1 2 29	4 2 1 3 24	4 1 2 3 24
4 2 1 3 30	2 3 1 4 32	3 4 2 1 36	4 3 2 1 32	4 3 1 2 30
4 2 3 1 17	2 3 4 1 18	3 2 1 4 21	4 3 1 2 18	4 3 2 1 16
4 3 1 2 6	2 4 1 3 8	3 1 4 2 14	4 1 2 3 10	4 2 1 3 10
4 3 2 1 5	2 4 3 1 6	3 1 2 4 10	4 1 3 2 7	4 2 3 1 6
3 1 2 4 22	4 1 3 2 19	1 4 2 3 16	1 2 3 4 20	2 1 3 4 22
3 1 4 2 13	4 1 2 3 12	1 4 3 2 13	1 2 4 3 14	2 1 4 3 16
3 2 1 4 21	4 3 1 2 17	1 2 4 3 12	1 3 2 4 17	2 3 1 4 18
3 2 4 1 11	4 3 2 1 8	1 2 3 4 5	1 3 4 2 8	2 3 4 1 8
3 4 1 2 3	4 2 1 3 3	1 3 4 2 6	1 4 2 3 5	2 4 1 3 6
3 4 2 1 2	4 2 3 1 1	1 3 2 4 2	1 4 3 2 2	2 4 3 1 2

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CLINTON
Clinton Tractor & Implement Co.
CORTLAND
Cain's Tractor & Implement Inc.
CROPSVILLE
Brown's Garage
DEPAUVILLE-WATERTOWN
Carl C. Fry, Inc.
DUNDEE
Dundee Motors, Inc.
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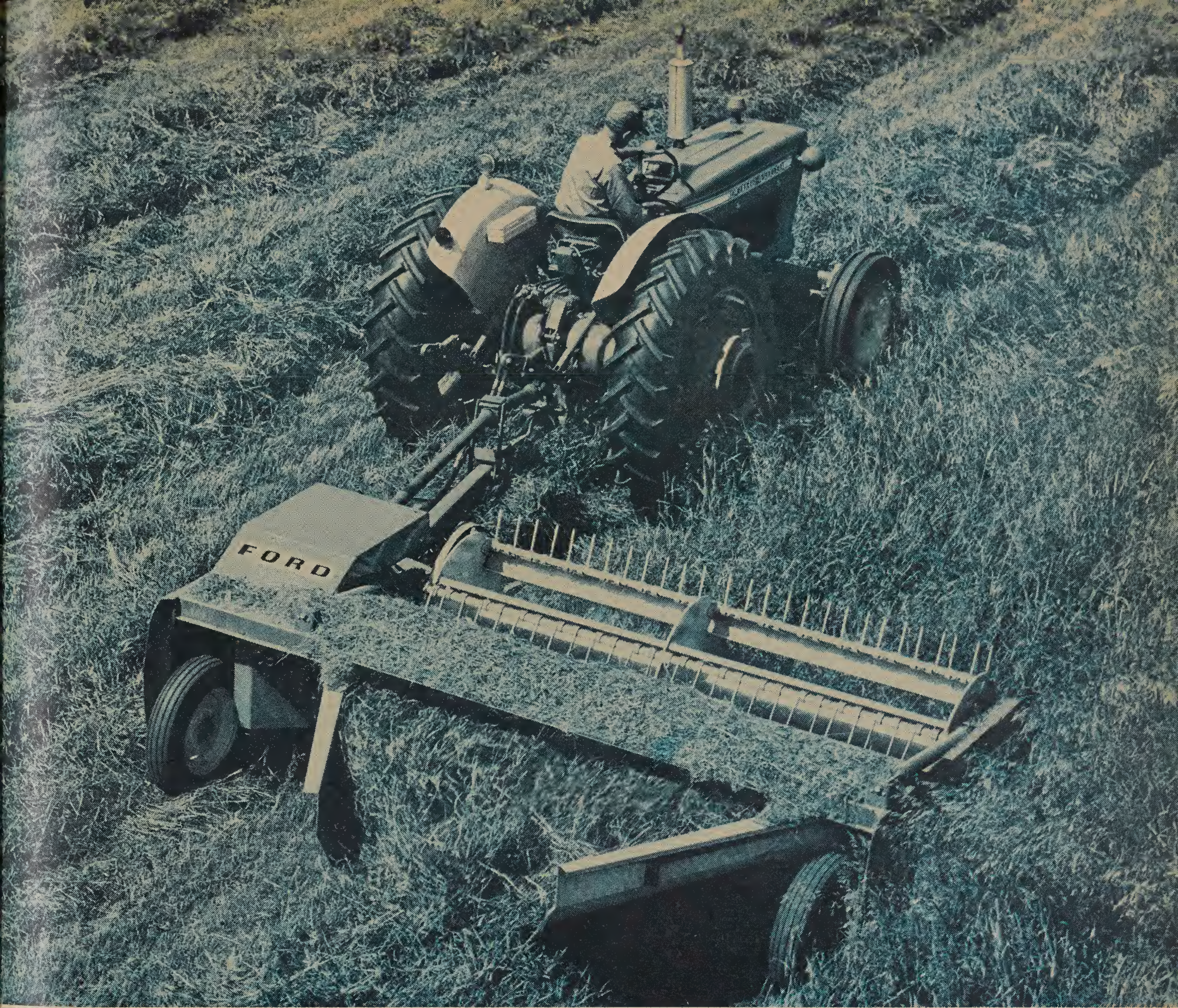
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With the Ford 535 mower-conditioner, top haying performance is cut and dried.

Once over the field with our Ford 535 mower-conditioner and you cut . . . condition a 9-ft swath . . . and leave a neat, clean windrow. It's that simple. Cut and dried. You save time and fuel and you're on your way to better hay, because conditioned stems dry faster. You save more nutritious leaves . . . more TDN per ton.

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No shear pins. You'll never waste time replacing shear pins on our 535. Instead of shear pins, clutches protect the mower-conditioner and tractor against damage.

Hook our 535 behind one of our Ford tractors with independent PTO and you'll operate the 535 without stopping or clutching. We'll be happy to show you all our fine Ford products. Tractors from 30 to 130 hp and Ford Blue equipment to match. Come on in tomorrow. You'll find us on the adjoining page.



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GROWS SUNFLOWERS

William Austin, R.D. 1, Geneva, New York, operates a 420-acre farm near the settlement of Hall on Austin Road, just west of its intersection with the Little Church Road. It's a cash-crop farm . . . with 65 acres of cabbage, 93 of table beets, 35 of corn for grain, plus some wheat and hay. Two other crops are a bit unusual

. . . about 40 acres of sunflowers and 3 of rhubarb. The latter isn't sold for pies, but rather the roots are marketed to several nurseries for resale to customers who want to grow their own pieplant.

Growing sunflowers, which Bill calls a "profitable hobby," has been going on here for seven years. All

the crop is retailed at the farm . . . presently in two sizes of package . . . 15 pounds at 14¢ per pound, or 50 pounds at 12¢ per pound.

Anytime

He advertises in area newspapers and pennysavers, making the point that people can pick up sunflower seed at any time of day, or at any time of year. Bill reports that many people feed birds the year 'round, believing that this encourages a greater variety of birds to stay in the backyard than will winter feeding only.

The techniques of sunflower growing are similar to growing corn . . . fertilization, planting, cultivating, etc. Harvesting, though, requires a special head on the combine . . .

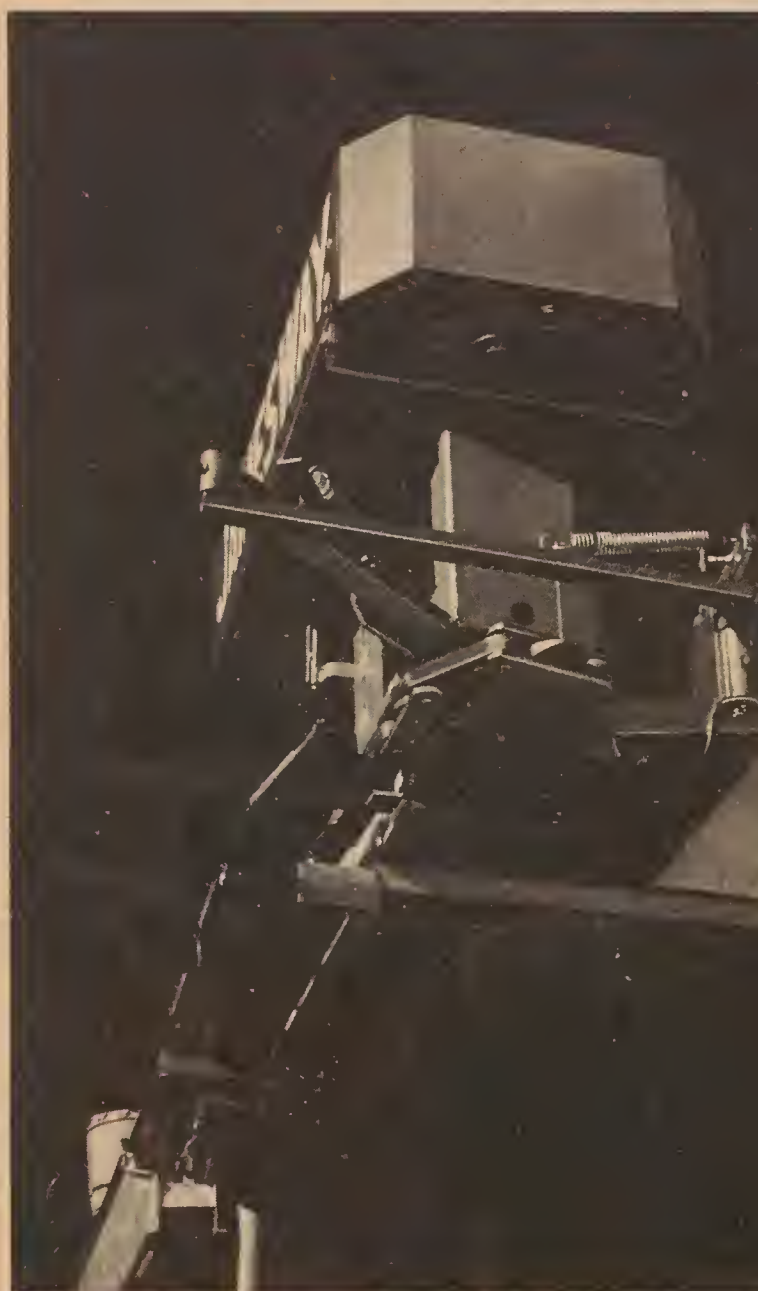
designed to handle a crop that can be unusually cantankerous. Bill got most of his sunflower information . . . other than that learned at the school of hard knocks . . . from a bulletin published at the University of Minnesota.

Arrowhead

The variety grown here is Arrowhead; this and many other varieties are used by sunflower growers in North America. Bill comments that the ideal head size is 5 to 6 inches in diameter . . . if they're larger, it's an indication that plant population per acre is too low for top yield.

The usual harvest time for sunflowers at the Austin farm is the last two weeks in October. "You have to be timely, or you'll lose a lot of the crop to birds . . . especially red-winged blackbirds. If the crop is left too long, seed also begins dropping out."

Most customers pick up either 15 or 50 pounds of sunflower seed when they come to the Austin farm . . . but some buy 100 pounds or more. They seem to like the idea of getting it direct from the farm, especially where someone will take the time to visit a bit about the weather, the state of the world . . . and, of course, feeding birds.—G.L.C.



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Horse judging

(Continued from page 14)

In the bottom pair, we liked 4 over 1 because 4 is closer-coupled and shows more muscling and substance throughout. No. 4 is especially more heavily muscled than 1 in the region of the stifle and gaskins.

We grant that 1 is a trimmer horse, leaner in the neck than 4, but we easily place 1 last because of a noticeable lack of muscling and substance found in the other horses in this class.

Class 5

We placed this class 1-3-4-2 . . . having started with No. 1, the most powerfully muscled and nicely balanced horse in the class. No. 1 excels 3 in overall style and balance. No. 1 also has more expression of muscling in the forearm, is more smoothly turned over the croup and more heavily muscled in the quarters than 3.

We grant that 3 is longer and cleaner in the neck than 1, but fault 3 for lacking the overall muscling, smoothness and balance of 1.

In the middle pair, we placed 3 over 4 because 3 is a larger, more upstanding horse that is longer and leaner in the neck. No. 3 also is a cleaner, more stylish horse that is more prominent at the withers and shows more quality, balance and character than 4.

We grant 4 is shorter in the back and smoother over the croup, but fault this horse for lacking the size, scale, style and quality of 3.

In the bottom pair, we liked 4 over 2 because 4 is showing more muscling and substance than 2. No. 4 is a cleaner horse, sharper at the withers and leaner in the neck, and stands more correctly on the front feet and legs.

We grant that 2 is carrying more condition and bloom than 4, but criticize 2 for toeing out or appearing too splay-footed and for lacking the sharpness of 4.

American Agriculturist, May, 1971

SPECIAL CALF BARN

Whitecrest Farms are located on Bishop Street Road seven miles west of Adams, New York. Leroy White and his father Norman are partners in operating this 1100-acre dairy farm.

They recently completed a 24x140-foot calf nursery at a cost (including land, water system, building construction, and equipment) calculated to be \$340 for each of the 66 pens.

Less Mortality

Knowing that the big bugaboo of calf raising is disease, the Whites included several mortality-reducing features:

1. Thermostatically-controlled temperatures in the well-insulated building.

2. Air is changed every six minutes; fresh air flows out of openings in a large plastic tube suspended from the ceiling.

3. Floors of pens are made of metal grids that allow manure to drop through, and prevent calf from getting wet. An electrically-powered scraper removes manure from floor below pens.

4. Four special-treatment stalls have solid plywood walls, heated floors, and removable plywood covers. Here, calves are examined soon after birth and given their shots.

5. Metal-grid floors are cleaned daily with a sanitizing solution sprayed from a high-pressure gun (800 pounds psi).

Unusual

Probably the most unusual component of the system, though, is "Mama"... a mechanical-feeding device manufactured by the Oneto-Gotelli Company of Stockton, California. The feeder dispenses warm milk, grain, and hay as it moves slowly along its track... stopping at timed intervals in front of each calf (6 minutes and 15 seconds per stop).

Four calves have access to vittles on each side of the machine when it stops... a milk nozzle for one, plus three compartments (two con-

taining grain, and one hay). A calf gets a shot at milk, then grain in the first compartment, then hay, and finally grain again. After that "Mama" moves out of reach until the next trip down the rails.

The Whites have 600 head of dairy animals in all, and produce nearly six tons of milk per day. Their nursery is another entry in a growing list of northeastern dairymen who recognize the need for greater priority being assigned to starting the calf crop. Slowly, calf raising is evolving from the neglected step-child it has traditionally been toward the higher status it so richly deserves.



At one end of the mechanical feeder unit are three hoppers... two holding grain, and one hay. Note perforated tube at left that carries air into the building.

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In the field, the yard or the barn—loading, tilling, mowing or towing—wherever you need a hard-working, lightweight tractor, the Leyland 154 is the most economical answer.

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LEYLAND TRACTORS

71-H30A



"Mama" is the machine that feeds milk, grain, and hay on a precisely-timed delivery schedule. On the near end are the electrical controls and behind them the tank carrying milk for feeding.

Photos: Watertown Daily Times

For greatest profits,
smart farmers dry,
store and feed their own grain.
Clayton & Lambert equipment
makes it possible.

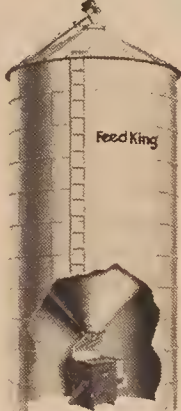
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- Converts your present bin into a high capacity continuous grain dryer. (Not a grain stirrer or recirculator.)
- Low initial cost, low operating cost, low maintenance.
- A 25' bin set for 5% moisture removal can dry up to 1,300 bushels yellow corn an hour.
- Wet holding hoppers can be installed in some bins over the Roto-Flo.

* Patent No. 3449840

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Travel Service Bureau, Inc., Dept. J-1

60 Dedham Ave., Needham, Mass. 02192

Send me full details about the Eastern Canada & Bermuda Cruise.

Name _____

Address _____

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PLEASE PRINT



This picture was taken from high on a mountain in Glacier National Park. Far below, on the water's edge, is Many Glacier Hotel, "Showplace of the Rockies."

TRAVEL IN THE U.S. WITH A.A.

Traveling to far away places is always fun, but wherever you go, it's hard to beat the beautiful scenery and interesting sightseeing found right here in our United States. Travel Service Bureau has arranged three wonderful summer tours for AMERICAN AGRICULTURIST readers, and we invite you to join us for your vacation. Here are brief descriptions of these tours.

The first is a **Great Lakes Circle Tour**, and the dates are **July 9 to 24**. If you come with us, you'll ride to the foot of mighty Niagara on the "Maid of the Mist," attend a performance at the Shakespearean Stratford Festival in Ontario, visit Ford Motor Company's River Rouge Plant, and explore Holland, Michigan, which was settled by the Dutch in 1847.

You'll ride around Mackinac Island in a carriage (no automobiles are allowed there, you know) see ships go through the Soo Locks, and marvel at famous Pictured Rocks and lovely Wisconsin Dells. Our tour ends with a day of sightseeing and shopping in Chicago.

Heart o' the West

This year's dates for our popular Heart o' the West Holiday are **July 31 to August 22**, and the itinerary is very similar to last year's, but with a few changes which we think make it better.

The first highlight of our tour will be the Black Hills section of South Dakota with its many attractions—Needles Highway, Mount

Rushmore, the Crazy Horse Memorial site, a ride on the Black Hills Central narrow gauge railroad, Wind Cave, the Homestake Mine at Lead, and the famous Passion Play at Spearfish.

On our way to Yellowstone National Park, we visit Buffalo Bill Museum and spend a night at Cody, Wyoming. Entering Yellowstone, we follow the Grand Canyon of the Yellowstone to Mammoth, enjoy a stagecoach ride at Roosevelt Dude Ranch, and continue to Old Faithful for overnight. The majestic Grand Tetons and beautiful Jackson Lake in Grand Teton National Park are the next day's attractions.

We spend two nights in historic Salt Lake City, visit Bryce Canyon and Zion National Parks, and thrill to Grand Canyon's awe-inspiring beauty. Then comes Mesa Verde National Park, Royal Gorge and the lovely mountain cities of Colorado Springs and Denver. We'll travel to the top of Pike's Peak, see Cheyenne Mountain, Will Rogers Shrine, Garden of the Gods, and the Air Force Academy.

Since the number of persons we can take on both of these western trips is limited, we urge you to send now for the itineraries and make your reservations as soon as possible. We don't want you disappointed!

Alaska Cruise

Each year we offer a trip to our 49th State and feature the beautiful Inside Passage Cruise, but it has
(Continued on next page)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Great Lakes Circle Tour _____ Spain-Portugal _____

Heart o' the West _____ Grand European Tour _____

Alaska Cruise _____ Eastern Canada-Bermuda _____

British Isles-Iceland Holiday _____ Scandinavian Holiday _____

Mt. Hope Cruise _____ Grand Alpine Tour _____

Name _____

Address _____

Zip _____

(Please print)

(Continued from page 18)

been quite a while since we've also included Glacier National Park, the "Switzerland of America." The dates are August 19 to September 4, and we hope you'll go with us.

Glacier National Park is an alpine wonderland of snow-crested peaks, gleaming lakes, sparkling waterfalls, and lush green forests. There are 60 living glaciers within the Park boundaries. We will travel over famous Going-To-The-Sun Highway and spend one night at Many Glacier Hotel, called the "Showplace of the Rockies." Another scenic drive takes us north into Waterton Lakes National Park in Canada.

Vancouver, British Columbia, is known as Canada's most beautiful city, and our sightseeing here includes Stanley Park, Lions Gate Suspension Bridge, Capilano Canyon, Queen Elizabeth Arboretum and Conservatory, and much more. Next, we board the SS Prince George for eight wonderful days of cruising the Inside Passage, through 2,000 miles of spectacular scenery. Be sure to bring your camera! Since we're never out of sight of the mainland, sailing is always smooth and delightful.

Our first ports of call are Prince Rupert, Ketchikan and Juneau. From Juneau we take a sightseeing tour to Mendenhall Glacier and Auke Lake with its famous Log Chapel. Skagway comes next, and shortly after

arrival, we transfer to the White Pass & Yukon narrow gauge train for the breath-taking ride to White Pass Summit and Lake Bennett. Truly an unforgettable trip!

Cruising southward, we stop at Wrangell, Prince Rupert, and at Alert Bay if tide and weather permit. The city of Victoria is our next attraction; we will see her parks, Marine Drive, choice residential areas, City Center, and world-famous Butchart Gardens.

During our day in Seattle, we will ride the Monorail to Seattle Center and then enjoy lunch in the revolving restaurant at the top of the Space Needle. Later in the afternoon, we board the Vista Dome North Coast Limited and start for home.

It's impossible to mention all

the places we will visit on these trips. Our itineraries will give you full details and information about costs. All AMERICAN AGRICULTURIST tours are escorted trips, and everything is included in the price of the ticket—all transportation, all scheduled sightseeing, first class hotel accommodations, meals and tips. Fill out the coupon and mail it today.

Don't Delay!

There's still space left on our Grand Alpine Holiday, the Eastern Canada-Bermuda Cruise, Grand European and Spain-Portugal tours; also, if you act at once, you can still join our British Isles-Iceland or Scandinavian Holidays. Make your reservations now!

Hesston Fits in...

...where fields are hard
to get in and out of

with the **PT-7**



The little windrower with big ideas!

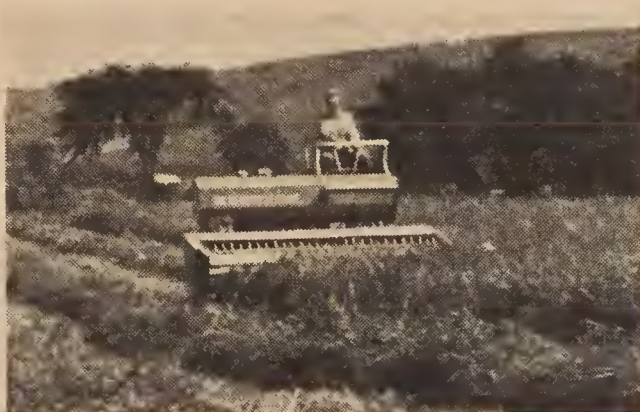
With Hesston's PT-7, you've hitched your tractor to a star windrower. Though small in size—for easing in and out of small, irregular fields—the PT-7 proves that dynamic performance can come in a small package. □ First off, there's "Hesstonized" hay. Steel fluted and molded rubber rolls reduce leaf loss while preventing over-conditioning.

□ Next, there's the PT-7's simplified drive system. One belt and one chain add up to more efficiency and less maintenance. □ Then, there are the easy-to-adjust forming shields that give you fast-curing swaths or high, fluffy windrows. □ Finally, as if all this weren't enough, Hesston enclosed the drive line for extra safety and even greater durability. In short, the PT-7 is everything you could ask for in a small windrower.

□ Ask for proof at your Hesston dealer's.



HESSTON PT-10 WINDROWER. Here's the same basic pull-type windrower—in 9'3" size—that forms fast-curing swaths or high, fluffy windrows. Available only from your Hesston dealer.



HESSTON 320 WINDROWER. The self-propelled windrower that hays...weather or not. Features easy-to-adjust forming and fluffing shields for even hay curing whatever the humidity.

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FARM TROOPER, designed for rugged chores, has a 7 cu. ft. steel cargo box and 225 lb. payload capacity.

ROUGH RIDER . . . by McKee, already well known in the harvesting equipment and rotary snow plow lines.



Left: ARGO comes in 6 or 8-wheel models. Argo 8 will carry 6 people or 100 lbs. of gear, is powered by a 28 hp, 2 cylinder, 2 cycle, air-cooled engine.



TRICART pulls a utility trailer . . . or explores the great outdoors. New 4-cycle model has 8 hp engine with adjustable regulator to govern vehicle's speed up to 25 mph.



Left, above: STALKER . . . by Ski-Tow . . . offers a 4-cycle air-cooled engine which develops 25 mph on land, 2-4 mph in water. Features specially designed clutch/brake combination.

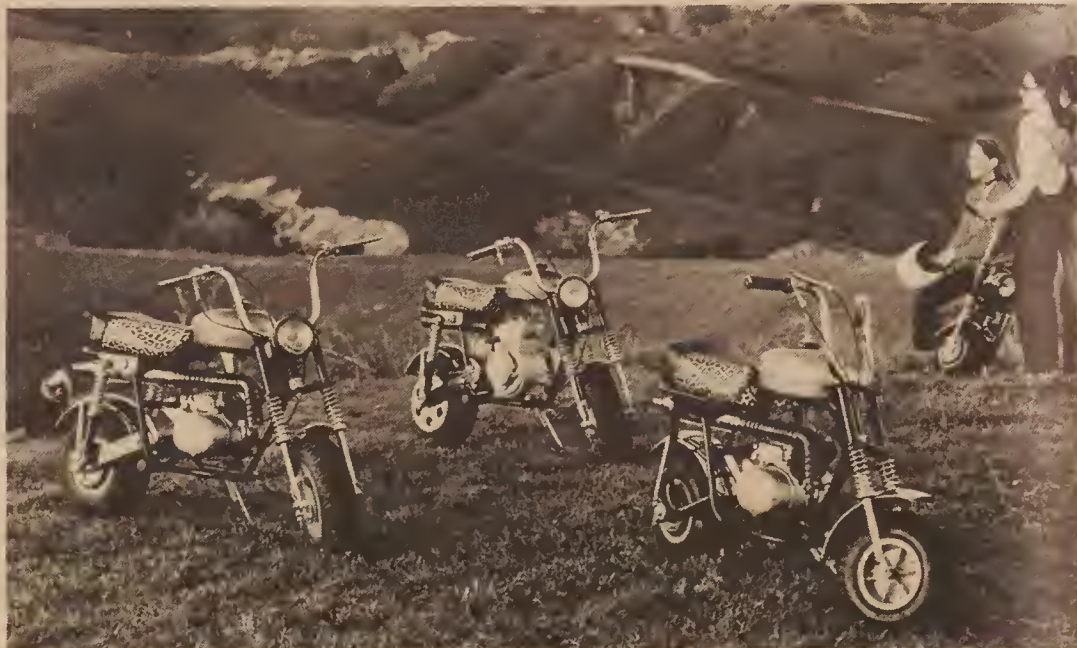


RUPPSTER Baja 230 is powered by a 230 cc, 12 hp engine, features torque converter.



Above: MINI BRUTE, a three-tired work or fun vehicle, is powered by an 8 hp Chrysler 134 cc engine. Optional is the Solo 11½ hp, 180 cc engine.

Below: ARCTIC CAT's new mini-bike models include (l. to r.): Prowler, Climber and Whisker. A fourth model is Screamer. Engine sizes range from 47 to 172 cc.



The **VERSATILES:**

the go-anywhere vehicles for work and fun!

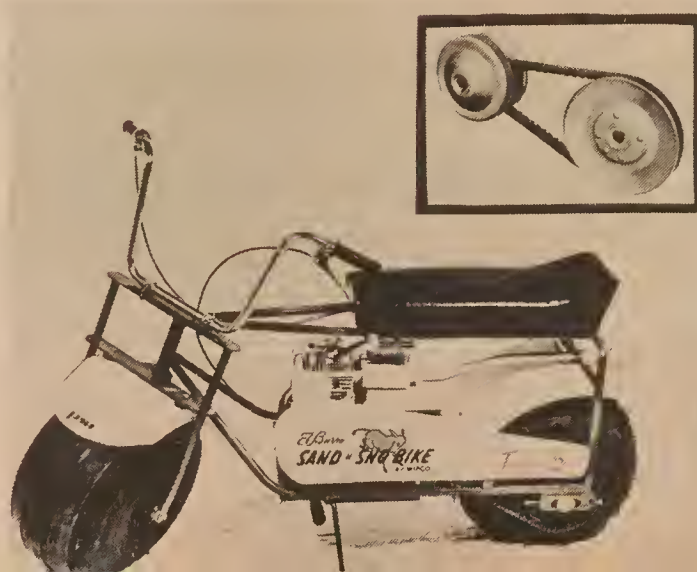


AMPHICAT will carry two men and their gear almost anywhere they want to go. Available in 8, 16 or 20 hp engines.



MAX, by Recreatives, Inc., has a 20 hp engine, automatic parking brake, foot operated emergency brake. Electric start, reverse gear and sealed beam headlights are standard equipment.

Below, right: TRACKER changes from skis to wheels in minutes. Available in two power packages range from 395 to 634 cc.



EL BURRO "Torque 5" sand 'n' snow bike has extra-power TC-88 torque converter. Disc brakes are standard.

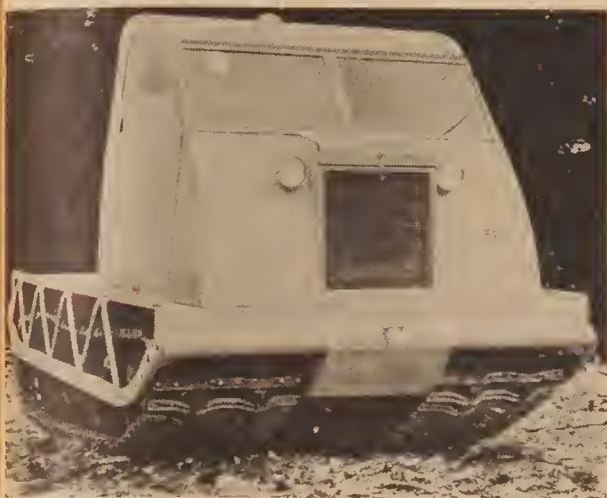




SKIPPER



TRACKSTER



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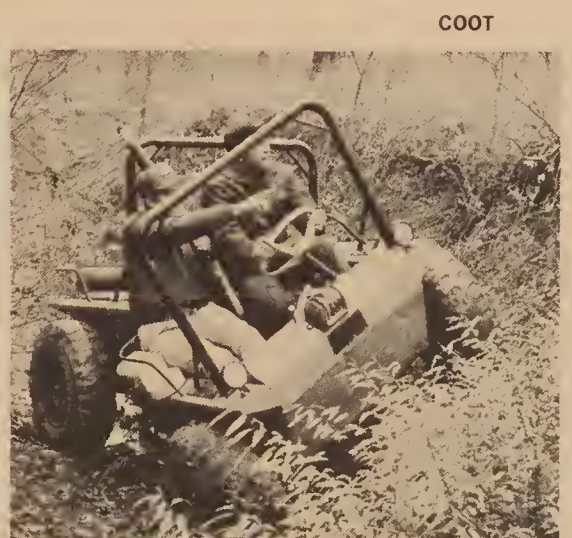
KID



PATHFINDER



SOFARE



COOT



PASSEPARTOUT



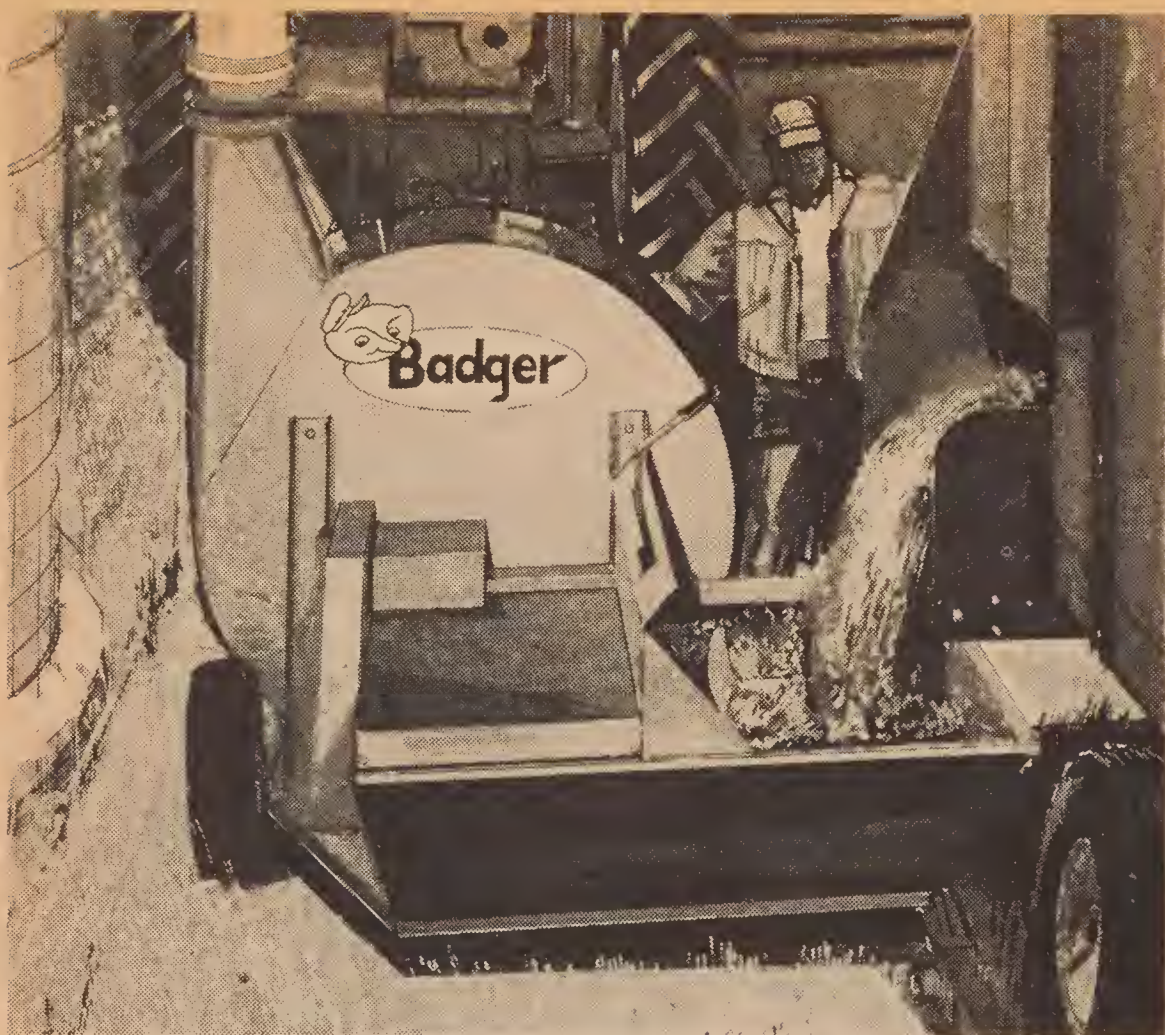
TRAIL-BREAKER

ATV MANUFACTURERS

(When writing for information, please tell 'em that American Agriculturist sent you!)

Amphicat: Mobility Unlimited, P. O. Box 100, Raymond, Miss. 39154.
Arctic Cat: Arctic Enterprises, P.O. Box 635, Thief River Falls, Minn. 56701.
Argo: Ontario Drive & Gear, 589 Fairway Rd., Kitchener, Ontario, Canada.
Attex: ATV Mfg. Co., 1215 William Flynn Hwy., Rt. 8, Glenshaw, Pa. 15116.
Bazoo: Otaco, West St. S., Orillia, Ontario, Canada.
Boon-Docker: BMB Co., Vermont at 9th, Holton, Kans. 66435.
Burro: Penco, P.O. Box 2572, Muncie, Ind. 47302.
Caribou: Ben-Augus Industries, P.O. Box 130, Lambton, Cte Frontenac, Quebec, Canada.
Centipede: Camel Mfg. Co., 329 S. Central St., Knoxville, Tenn. 37902.
Chaparral: Chaparral Industries, 5995 N. Washington St., Denver, Colo. 80216.
Coot: Cummins Engine Co., c/o Hill & Knowlton, 150 E. 42nd St., New York, N.Y. 10017.
Eagle T: Standard Eng. Co., ATV Div., Fort Dodge, Iowa 50501.
El Burro: Worth Industrial Processing Co., Lexington, Mich. 48450.
Farm Trooper: Trooper Co., Box 96, Issaquah, Wash. 98027.
Gnat: American Pride Products, Troy, Mich. 48064.
Kid: Kinetics International, P.O. Box 6267, Dallas, Texas 75222.
Max: Recreatives, 30 French Rd., Buffalo, N.Y. 14227.
Mini Brute: Feldman Eng. & Mfg. Co., 633-639 Monroe St., Sheboygan Falls, Wisc. 53085.
Mini-Vee: S&W Vehicles, P.O. Box 728, Drummondville, Quebec, Canada.

Passepartout: Valcartier Industries, P.O. Box 790, Valcartier, Quebec, Canada.
Pathfinder: Jen Products, P.O. Box 59, Grand Ledge, Mich. 48837.
Playcat: Playcat Industries, P.O. Box 39, Drummondville, Quebec, Canada.
Ridge Runner: Ridge Runner, 5221 Lakeland Ave. N., Minneapolis, Minn. 55429.
Roughrider: McKee Bros., P.O. Box 70, Elmira, Ontario, Canada.
Ruppster: Rupp Industries, 1776 Airport Rd., Mansfield, Ohio 44903.
Scrambler: Action Age, 18780 Cranwood Pkwy., Cleveland, Ohio 44128.
Sierra Trail Boss: Vesely Co., 2101 N. Lapeer Rd., Lapeer, Mich. 48446.
Skipper: ATV Mfg., 81 Lincoln St., Toronto, Ontario, Canada.
Sofare: Riviera Cruiser, Columbia City, Ind. 46725.
Stalker: Ski-Tow Mfg. Co., 3301 Phillips St., Elkhart, Ind. 46514.
Terra Jet: Terra Jet, P.O. Box 724, Drummondville, Quebec, Canada.
Terra Tiger: Allis Chalmers, Milwaukee, Wisc. 53201.
Tomsicek: Tomsicek Mfg. Co., 1419 Adams Blvd., Ithaca, Nebr. 68033.
Tracker: Alsport, 84 Whittlesey Ave., Norwalk, Ohio 44857.
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NEW SILAGE DISTRIBUTOR

Ground controlled silage distributor operates manually or with electric motor. Fills the silo evenly from the ground up. Eliminates hand leveling, exposure to silo gasses. Avoids air pockets and uneven pressure on silo walls. Lets you pack more in . . . get better silage out.



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Dollar Guide



PRICE SUPPORT level for manufacturing milk ... earlier announced at \$4.66 per hundredweight ... was later raised to \$4.93. USDA officials, even as they announced increase, pleaded with dairymen for restraint in milk-production increases. Per capita consumption of milk continues to fall.

NATIONAL FARMERS ORGANIZATION is in milk business in northeastern region... licensed for a bulk-milk reload operation at North Winfield (Herkimer County), New York. Richard Yule, R.D. # 1, West Winfield, New York, is chairman of the Herkimer County NFO Milk Bargaining Committee.

HAYCROP SILAGE offers advantages of complete mechanization of handling, as well as less weather damage than likely with hay. Clear seeding and improved techniques have boosted yields of alfalfa ... but one farmer remarked, "No problem to grow 6 tons of alfalfa per acre, but it is a problem to get the stuff dry enough to burn!"

Medium-moisture haycrop silage appears to be the wave of the present.

SEVIN is now allowed for controlling external parasites on laying hens ... even though its use for that purpose was temporarily withdrawn earlier. Withdrawal ... followed closely by reinstatement ... is typical of pesticide-regulation problems facing farmers in attempting to plan ahead and buy materials for future use.

POULTRY LIGHTING ... a subject still open to some debate ... does have some agreed-upon rules that are important when designing a house, or checking production problems. Poultry experts claim that too many poultrymen underrate the importance of strict adherence to a lighting program and consequently pay a severe penalty by obtaining sub-standard results. Brownout caused by blown bulb is more damaging in cage operation than in floor setup because caged birds can't move to light.

No matter what lighting program you have chosen, follow it carefully, especially in seasons having shortening days. And keep the bulbs clean so they deliver the light they're rated for!

EGG PRICES are predicted by poultry specialists to average 37.5 cents a dozen (N.Y. City, fancy large white) for 12 months ending April 1, 1972. October-December prices predicted at 41 cents.

FARM TRUCK DRIVERS must be at least 21 years of age. That's one of the new federal regulations scheduled to be enforced by July 1, 1971. American Farm Bureau Federation is fighting to get exemption to the new rules for trucks of under 10,000 pounds gross weight when used for transportation of farm products or supplies.

CONCENTRATED SPRAYS mean less water to haul, less compaction of fields and orchards, savings in time. Considerable research proves feasibility of 10-25 gallons of concentrated spray per acre doing job once requiring 100-200 gallons.

GARDENERS will find a copy of USDA bulletin "Storing Vegetables and Fruit" handy. Cost is 15 cents; request from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

NEW BOOKLET out on **Futures Trading in Fresh Shell Eggs**. Covers the record price rise period of 1969 when prices on maturing December futures went to a record 65.25 cents per dozen. Single copies may be ordered from: Commodity Exchange Authority, U.S. Department of Agriculture, Washington, D.C. 20250.

NO HORNS!

One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs—and no horns will grow. No cutting, no bleeding, 4oz. jar—\$1.00 at your dealer's, or mailed postpaid. **H. W. NAYLOR CO.** Morris 12, N.Y.

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Type P won't rust or clog. Bronze bearing. To 2,400 GPH. 1" in; 3/4" out. \$9.95
P'd cash with order. Money back Guarantee.

LABAWCO, Box 11, Belle Mead, N.J. 08502

HERBICIDES, INC.

by James McGovern

FARMERS in the Northeast are always looking for effective methods of applying herbicides. Many like the technique of incorporating their herbicide into the top few inches of the soil.

Mixed immediately into the soil with a disc or power tiller after application, a herbicide can't be blown away by winds, washed away by rains, or dried up by the sun. There's no need to wait for rainfall to move the herbicide into the weed-seed zone.

Custom Applied

It is possible, of course, to turn to a custom applicator for soil incorporation. However, there is a growing trend among growers toward rigging up their own arrangements... usually with a boom mounted in front of the disc... to incorporate pre-plant herbicides. A simple spray boom can be fitted to a tractor or tillage tools to apply herbicides. The spray unit can be followed by a disc and harrow to incorporate the chemicals into the soil.

A tank or drum side-mounted on a tractor to feed a belly-boom is a popular system for small acreages. The disc that follows should cut a little narrower than the spray pattern.

For larger acreages, more elaborate units with bigger tanks, pump, and spray boom can be fitted to any size tractor or disc. Or the grower can choose from a variety of specialized applicator kits which are distributed by a number of manufacturers.

Helpful Tips

A spring-tooth harrow set shallow following behind the disc is a common method for improving the mixing of the herbicide into the soil. However, the preferred method is to use a spike-tooth harrow behind the disc.

A plank float behind the disc provides some extra mixing and also helps make a smoother seedbed for planting. Cultipackers behind a disc provide another way to improve the mixing of the herbicide into the soil and also to smooth the field for planting.

Incorporation should be done within minutes after the herbicide is applied. A second discing should be made at right angles to the first for optimum control of nutsedge and the suppression of quackgrass. Planting can follow immediately after incorporation.

Experience

Here are some grower experiences:

In 1970, Bob Peterson of Caledonia, New York, planted 175 acres of dry beans around the first of June. He incorporated Eptam granules right in front of the planter with a Gandy unit mounted in front of a Killifer disc.

"The right speed is important," he notes. "I went over the ground at four-and-a-half miles an hour. If

American Agriculturist, May, 1971

you go too fast, you get too much bounce and that results in uneven application. And I like to disc the granules to the proper depth, setting the disc at four to five inches."

Bob applied Eptam at the rate of 32 pounds of 10-percent granules per acre. He has an across-the-board

weed problem, although redroot pigweed is always a particular headache. He harvested an average of 35 bushels per acre of dry beans.

James Blowers of Hall, Seneca County, New York is an agricultural-chemicals dealer and farmer who says, "I only recommend to my customers what I have tried myself."

Jim recommends Eptam (R) (emulsifiable liquid or granules) for weed control in dry and snap beans, and alfalfa. For grass control in sweet corn, he recommends Sutan (R) (also liquid or granules).

"About 95 percent of the vegetable

growers around here have gone to soil incorporation," he reports. While most growers use liquid formulations, there has been a growing trend toward the granular materials. "I think the change-over to granular is because it's so

much easier to take a bag out to the field," he says.

He adds that Eptam and Sutan

(Continued on page 25)



James Blowers

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Real horses take lots of oats.

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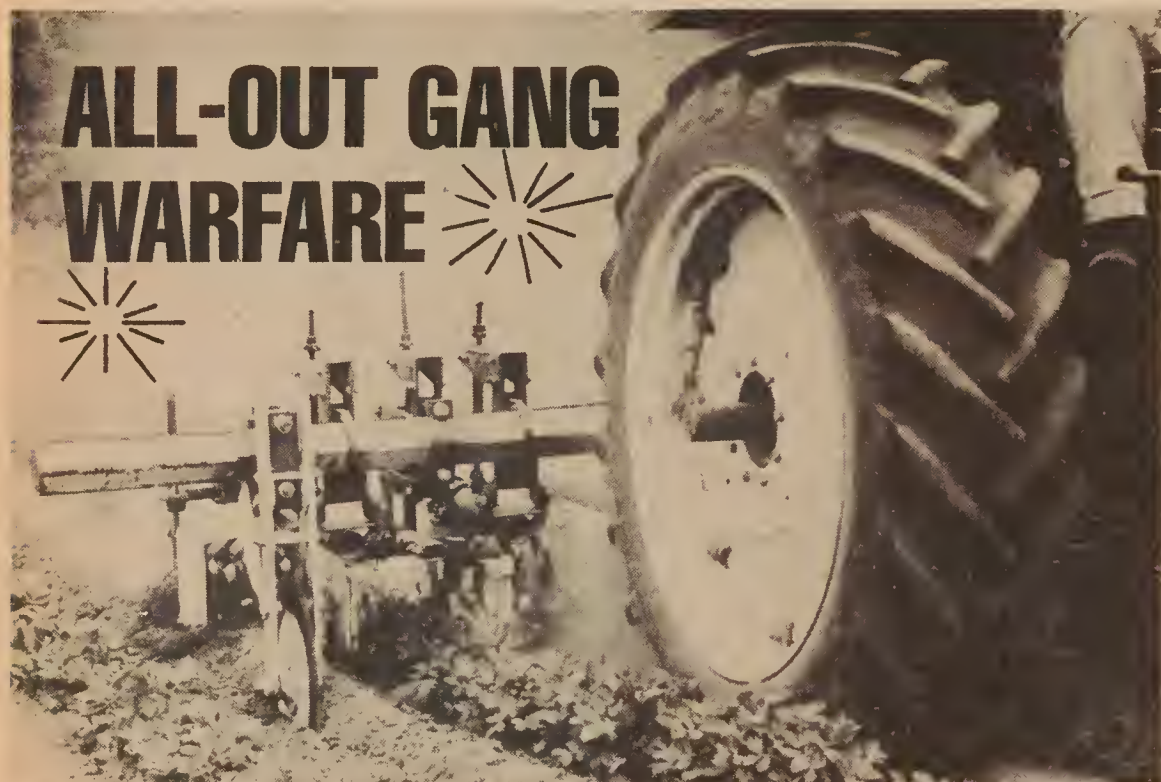
One of the best ways to apply Lasso + atrazine is to put it on after planting, but before emergence of the corn or weeds. And, by combining the application of liquid nitrogen and weed control in a single pass through the fields, you help bring growing costs down to rock bottom.

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Dates to Remember

May 1 - New York Beef Cattle-men's Association Feeder Calf Sale, Pike, N.Y.

May 8 - New York Beef Cattle-men's Association Feeder Calf Sale, Chatham, N.Y.

May 8 - New Jersey Hereford Association Annual Spring Sale (also Angus and Shorthorn), Cooperative Livestock Market, Hackettstown, N.J.

May 8-10 - Northeastern Loggers Congress, Burlington, Vt.

May 10-13 - American Guernsey Cattle Club Annual Meeting, Seattle, Wash.

May 14 - Feeder Pig Sale, Caledonia, N.Y.

May 15 - New England Angus Association Spring Sale, University of Vermont, Burlington, Vt.

May 16 - Third Annual Buck and Kid Show sponsored by NYS Dairy Goat Breeders Association, Fairgrounds, Altamont, N.Y.

May 17-22 - 10th International Flower Show, Hess's, Allentown, Pa.

May 23 - Pioneer Valley Wool Show, Fairgrounds, Cummington, Mass.

May 30 - Empire State Rabbit Breeders Association 25th Annual Show, State Fairgrounds, Syracuse, N.Y.

May 31 - Memorial Day (according to Uniform Holiday Bill effective 1971).

June 1-5 - Dairy Festival, Boston Commons, Boston, Mass.

June 4-6 - Delmarva Chicken Festival and National Chicken Cooking Contest, Ocean City, Md.

June 6-13 - Appalachian Wagon Train Trip in connection with Bedford County (Pa.) Bicentennial. For information, write: Jean Kimmel, Sec'y, R.D. 4, Somerset, Pa. 15501.

June 8 - 63rd Annual Convention American Feed Manufacturers Association, Conrad Hilton Hotel, Chicago, Ill.

June 9 - Eastern Milk Producers Cooperative Association Annual Meeting, Hotel Syracuse, Syracuse, N.Y.

June 14 - Flag Day.

June 15-17 - 103rd Annual Meeting American Jersey Cattle Club, Reno, Nev.

June 18 - Feeder Pig Sale, Caledonia, N.Y.

June 22-24 - American Beef Cattle Symposium, University of Wisconsin, Madison, Wis.

June 23-25 - Annual State 4-H Congress, Cornell University, Ithaca, N.Y.



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Herbicides

(Continued from page 23)

create no soil residue problems and, therefore, growers can easily rotate their crops.

OYF Winner

Harold Kludt, who won the Outstanding Young Farmer of New York State award in 1970, teams up with his brother Rudolf to grow 400 acres of snap beans at Kendall, Orleans County, New York.

In 1970, Harold made his own 21½-foot boom which he mounted in front of his disc.

His herbicide, Eptam liquid, was applied at the recommended rate of ½-gallon per acre as it was pumped from the saddle tanks back through the boom-type sprayer. The disc, set at about five inches, then thoroughly incorporated the herbicide to a depth of three inches. This was done shortly before planting.

The Kludts averaged three tons of snap beans per acre in 1970, all for processing.



Harold Kludt

Forage Crops

Dairymen have also used the herbicide incorporation techniques when making clear seedings of hay crops.

Tom Walker and John Casman, partners in the operation of Dutchfield Farms near Amenia (Dutchess County), New York, feed 200 acres of alfalfa as haylage to their 300 cows. Deciding to grow a clear stand of alfalfa . . . without nurse crop, or using any grass in the seeding mixture . . . they applied Eptam from a tractor-mounted boom. The same tractor pulled a disc for immediate incorporation of soil and weedkiller.

The result . . . three cuttings of alfalfa in the seeding year, at an estimated yield of six tons per acre.

Ken Gates of West Winfield, Herkimer County, New York, operates

. . . with his brother and son

. . . Gatesdale Farms (150 cows and 80 young stock). In 1970, they used Sutan plus atrazine on 20 acres of corn where nutsedge was a particular problem. This

combination calls for low rates of atrazine, in turn reducing danger of herbicide residue, so that clear-seeded alfalfa could follow corn the next year.

Ken used a tractor-drawn sprayer with 21-foot boom, followed immediately by another tractor pulling a disc and trailing harrow. He cross-discd at right angles to the first discing . . . necessary to mix the herbicide thoroughly into the top three inches

He missed one triangular piece of ground by turning the spray rig too short . . . and it grew nutsedge like a green carpet. But the rest of the field featured dead nutsedge, and 30-ton-per acre corn!

John Tirabassi of E. Tirabassi &

Sons, West Henrietta, Monroe County, New York first turned to mixing liquid herbicide into the soil in 1964. In 1968, he switched to applying Eptam granules.

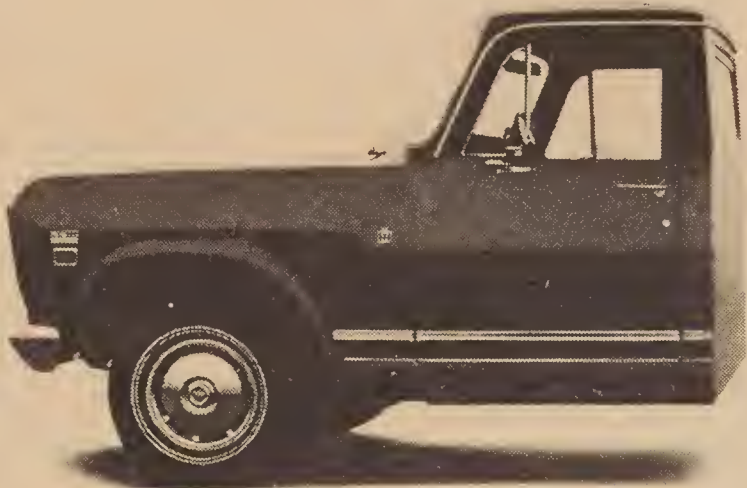
John applies and incorporates the granules with a disc-mounted Gandy unit just before planting his 400 acres of dry beans and 125 acres of snap beans.

One reason why Tirabassi incorporates Eptam is to suppress quackgrass. "It won't kill quackgrass," he says, "but it will retard and suppress it." John uses Sutan and atrazine on his sweet corn acreage. He incorporates Sutan granules for grass control before planting his sweet corn, then follows up with a post-emergence application of atrazine liquid to get broadleaf weeds.



Dairymen Charles Llewellyn & Sons (son Bill shown), Five Points Farm, Northfield, Massachusetts, use plastic milk room sanitizer jugs for freezing colostrum. They freeze and store in an old upright home freezer, marking compartments "in" and "out" and using the older colostrum first. Photo: Charles L. Stratton.

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front and the weight in the back is the transmission. Since it's going to be doing a truck's job—make sure it's a truck transmission. We have seven available—two 3-speeds, two 4-speeds, a 5-speed heavy duty, a 5-speed with overdrive and a 3-speed automatic.

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The last half.

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Ken Gates

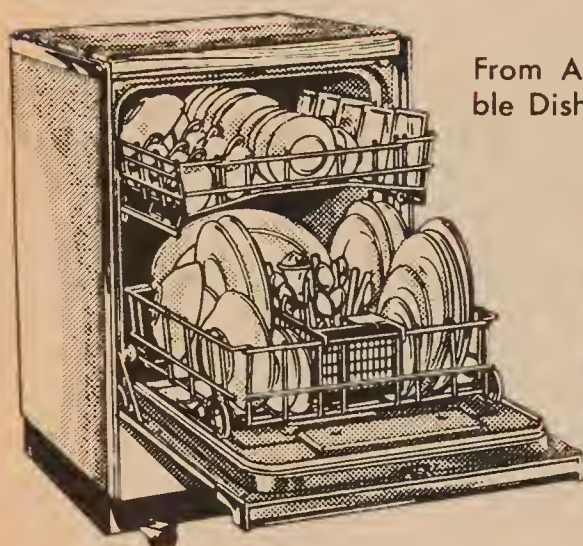
PRIZES FOR CHIFFON CAKES!

by Augusta Chapman,
Home Editor



PRIZES TO
TOP TEN WINNERS

GRAND PRIZES



From Agway, Inc.: Hotpoint Portable Dishwasher.



From GAF Corporation: 236 Anscomatic Camera Kit.



From Oneida Ltd. Silversmiths: 48-piece set Community Silverplate with deluxe chest.



From International Multifoods: Hamilton Beach Deluxe Food Mixer.



From National Grange Mutual Insurance Co.: 4-piece Community Coffee Service.



From Monarch Range Company: "Jet-Fan" Electric Range with new "Sta-Klean" Oven.



From International Salt Co.: A 13-piece Fondue Ensemble.

For 36 years AMERICAN AGRICULTURIST and New York State Grange have co-sponsored an annual baking contest open to all Subordinate Grange members in the State, with the exception of those who are professional bakers. Every year thousands of Grangers enter the contest, each hoping to win one of the exciting grand prizes, as well as cash awards and the valuable grocery prizes given to all ten high scorers in the finals.

Our 1971 baking contest features Chiffon Cake. Most Subordinate Granges have already held their bake-offs, and these local winners are now competing in the county contests. The 53 county winners will vie for top honors next October when State Grange Session is held at Lake Placid, New York.

The women on the State Grange Service & Hospitality Committee tell me that our contest is always one of the most popular events of their year's program. We feel sure this popularity is due in a large measure to the fine prizes awarded state winners.

AMERICAN AGRICULTURIST and

New York State Grange appreciate the fine cooperation many companies give us year after year and sincerely thank each one participating in our Chiffon Cake Contest. We are very proud of these prizes and feel sure they will make everyone want to do their best to be one of the high winners at Lake Placid. Here are the prizes!

GRAND PRIZES

The top winners will receive one of the following grand prizes:

From Agway, Inc.: A Hotpoint Portable Dishwasher with convenient grooved maple cutting-board top. The dishwasher can also be built in for permanent installation if desired.

From GAF Corporation: An Anscomatic 236 Instant Loading Color Outfit with Electric Eye for perfectly exposed pictures.

From International Multifoods: A Model 25 Hamilton Beach Deluxe Food Mixer in gleaming chrome and with two stainless steel bowls.

From International Salt Company: A 13-piece Fondue Ensemble. Includes 2-quart avocado colored fondue with tray and adjustable



From P. J. Ritter Co.: Gift box of assorted Ritter Products.



From International Salt Company: 2 packages of Sterling Table Salt.

White-plate lined cans



From Curtice-Burns, Inc.: Case of Blue Boy Vegetables in white-plate lined cans.



From Dairy Lea Cooperative Inc.: Treasure Chest Dairy Lea Cheese Assortment.

burner, 6 assorted color fondue plates and forks.

From **Monarch Range Company** (Beaver Dam, Wisconsin): Their "Jet-Fan" convection oven Electric Range that reduces baking and roasting time up to one-third. Also featured is Monarch's fantastic new "Sta-Klean" oven which cleans itself continuously while the user bakes and roasts at regular temperatures, plus lift-off oven door and lift-up cooking top.

From **National Grange Mutual Insurance Co.**: A 4-piece Coffee Service; includes 15-inch Round Tray of Community silverplate in "Park Lane" pattern.

From **New York State Grange**: Two grand prizes—a Singer Portable Zig-Zag Sewing Machine and a Singer Portable Television Set.

From **Oneida Ltd. Silversmiths**: A 48-piece set (service for 8) of Community Silverplate in "Spanish Crown" pattern, plus deluxe chest.

PRIZES TO TOP TEN WINNERS

Each of the 10 highest state winners will receive the following prizes:

From **Dairy Lea Cooperative Inc.**:

A Cheddar Treasure Chest Dairy Lea Cheese Assortment.

From **International Salt Company**: 2 packages of Sterling Table Salt.

From **P. J. Ritter Division of Curtice-Burns, Inc.**: A "Cumberland" Gift Box of assorted Ritter products.

OTHER AWARDS

Other contest prizes, including cash awards, are as follows:

From **International Multifoods**: A coupon for a 5-lb. bag of Robin Hood Flour to each of the 53 county winners:

New York State Grange will again award \$159 in entry prizes. Each of the 53 county winners taking part in the state contest will receive a \$3 cash prize.

AMERICAN AGRICULTURIST will distribute \$107 among the 25 top winners as follows: First prize, \$20; second, \$15; third, \$11; fourth, \$8; fifth, \$6; sixth, \$5; 7th through 10th, \$3 each, and \$2 each to winners 11 through 25.

Watch for the list of county winners in an early fall issue. And our December issue will feature a story of the state finals, with pictures of all winners present at State Grange.

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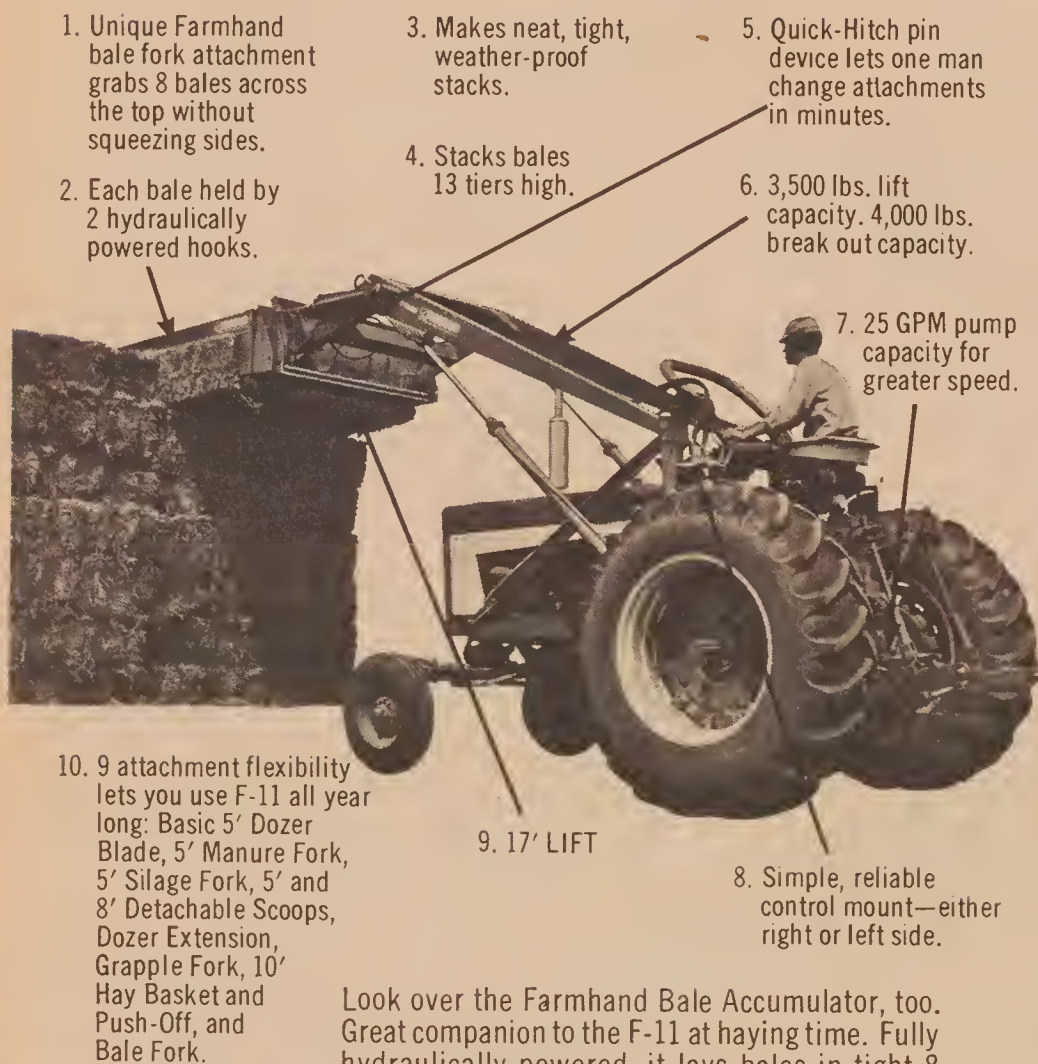
From New York State Grange: Singer Portable Television Set.



From New York State Grange: Singer Portable Sewing Machine.

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Nobody had to COAX ME TO EAT

by Geraldine Ross

Children are my favorite people. Generally, we see "I to I" which makes it easy for me to write for them. But in one very important way, many of them perplex and disappoint me — those who have to be coaxed to eat.



It was the other way around with me. Whenever my mother took me with her on an afternoon call which invariably included cake and coffee, she warned me in advance —

"Don't ask for a second helping of anything. Don't even look as though you want more. I'm not going to have people saying that Minnie's little girl stuffs herself!"

My tastes in food were all-inclusive. They still are. To this day, the stern admonition "It's a sin to waste food" is wasted on me. At home I relish everything, including leftovers. When dining out, I order only what I can eat and eat everything I order.

Nothing went to waste in my mother's or grandmother's kitchens. My brother, my stepsister and I did our share to make this virtue possible. We literally ate the "holes in the doughnuts." When pies were baked, every pastry scrap was popped into the oven along with the pies, and before you could say "Sakes alive!" we were smacking our lips over the empty tin. We took turns licking the frosting bowl, and we even loved the "scum" that forms on

a pot of simmering jelly.

My friends and I roamed meadows and woods barefoot, whenever chores permitted, from early spring into fall and knew where everything edible grew — berries, hazelnuts, even small blue flowers with tantalizing sour stems. Nebuchadnezzar wasn't the only one who ate grass!

Being poor has many disadvantages, but one great compensation for these is that a treat really is a treat. I never bit into a scoop of ice cream nestled in a cone until I was in my teens. This once-in-a-great-while treat was consumed with carefully spaced, appreciative licks.

On the annual Sunday School picnic, the first act of every child was to get in the ice cream line; then upon receiving his cone, the next act was go hurry back to the end of the line. Two cones were our limit, but oh what ice cream! It was rich and sweet from the freezers of several country kitchens, and sometimes... oh what bliss... the ice cream was pink through the grace of someone's strawberry patch.

The last lingering ice cream lick found us hovering over the long wooden picnic tables which were being laden (while the men played horse shoes) with sausage, cottage cheese, meat loaves, fried chicken, salads, baked beans, pickles and preserves, biscuits, cakes and cookies, all made from jealously treasured "receets" and all to be washed down with steaming mugs of campfire-cooked coffee or glasses of milk and well-iced lemonade for the small fry.

No, you never had to coax me to eat!

WHAT GRANDMOTHER IS

A grandmother is a lady who has no children of her own so she likes other people's little boys and girls. A grandfather is a man for grandmother. He goes for walks with boys and they talk about fishing and tractors and things like that.

Grandmothers don't have to do anything except be there. They are old so they should not play hard or run. It is enough if they drive us to market where the pretend horse is and have lots of dimes ready. Or if they take us for walks, they would slow down past things like pretty leaves and caterpillars. They should never say, "Hurry up."

Usually they are fat, but not too fat to tie shoes. They wear glasses and funny underwear. They can take their teeth out.

It is better if they don't typewrite or play cards, except with us. They don't have to be smart, only answer questions like why dogs hate cats and how come God isn't married. They don't talk baby talk like visitors do, because it is hard to understand. When they read to us, they don't skip, or mind if it is the same story again.

Everyone should try to have one, especially if you don't have television, because grandmas are the only grownups who have time to listen.

Garden Talk

by Katy and George Abraham

Vegetable Gardening

This promises to be the biggest year for vegetable gardening since World War II. How come growing vegetables, home canning and freezing are back in style? There are several reasons. In the first place, lingering inflation and rising unemployment are factors causing the switch. The home gardener knows he can save money by growing his own vegetables. For the time a gardener spends tending his crops, he makes a tidy \$4.00 an hour.

Since it's impossible to cover all phases of vegetable gardening in this space, I'll hit some questions asked us most often. Your County Agent or State College has good literature to guide you if extra help is needed.

Question: What's the best way to fit a clay or sandy soil for vegetables?

Answer: Organic matter is the best soil conditioner there is. If your soil isn't a natural loam, you can juggle it around and convert it into a workable loam. The cheapest way to do this is by adding organic matter — compost, peatmoss, sawdust, leaves, dead weeds, plants removed in cleaning up the garden, lawn clippings, wood chips, kitchen scraps, muck, rotted barnyard manure, and green manures (winter rye, buckwheat and legumes such as clover, which are turned under).

Question: Do soils which have had a lot of organic matter added need anything else?

Answer: Yes. Add a plant food carrying nitrogen to offset any possible nitrogen shortage which might come about, due to the action of micro-organisms. As a rough guide, you can add peat or compost to the topsoil at the rate of about 5 bushels per 100 square feet. To offset any nitrogen shortage, you can apply a mixed fertilizer such as 10-20-10 at the rate of 1 pound or less per 100 sq. ft. If you use a 5-10-10 fertilizer, apply 2 or 3 pounds per 100 sq. ft.

Many home gardeners like to drench organic materials with a liquid plant food such as 23-19-17. It takes about 2 tablespoons per sprinkling can of water (5 quarts) to drench 100 sq. ft. of soil.

Question: How about lime?

Answer: Most fruits and vegetables are happy with a slightly acid soil, so if your soil is in that condition, don't change matters. The majority of surface soils in the Eastern United States are naturally acid, and some liming is good.

Take a soil sample to your County Agent; a simple test will tell if lime is needed. A fair rule of thumb is to lime every three or four years. Do not lime every year because it might lock up nutrients in the soil. If you've been using wood ashes in the garden, don't apply lime. Carrots and beets are good indicators; if they grow well, you don't need lime.

Question: Are mulches practical?

Answer: Indeed! They should be used more. Plastic film (polyethylene) makes a fine summer mulch for hastening maturity, checking weeds and conserving moisture. With it, you can increase yield of warm-season crops such as melons, peppers, eggplant, tomatoes, sweet potatoes and watermelons. Black plastic is preferred to the clear because it shuts out sun, hence weeds cannot grow under it. During the day it absorbs the sun's heat more than do organic mulches, and at night it radiates the heat back faster. Thus plants mulched with plastics are somewhat less liable to frost injury than those mulched with organic materials.

Organic mulches include sawdust, shredded bark, wood chips and straw. Wheat, oat and buckwheat straw are good mulches, but have some disadvantages, especially as weed seed carriers and a fire hazard.

Remember sawdust, manure, leaf-mold and other carbonaceous materials may turn plants yellow. Soil fungi and bacteria decompose the materials and consume so much nitrogen that temporarily none is left for the plants. When leaves turn yellow, it's a hunger sign for nitrogen. Offset this by adding extra nitrogen, or drench the mulched area with a liquid plant food such as 23-19-17, mixed at the rate of ½ pound per 11 gallons of water.

Question: Is cultivation necessary in the vegetable garden?

Answer: You might want to hoe when seedlings are just peeping through the soil, for this kills a lot of weedlings. The purpose of a summer mulch is to save moisture and choke out weeds. In fact, summer mulches will cut down weeding as much as 90 percent.

We'd like to point out that a 50'x50' garden plot has about 170 pounds of weed seeds in it, and the best way to lick these future bandits is to get them while they're still small. A quick hoeing will shave off the weed plants, and then if you put a mulch on, few (if any) will ever make it.

If you're one who still believes in hoeing, keep in mind you don't gain a bit from deep hoeing or cultivation; just enough to break the crust is all you need. Never hoe or cultivate too close to plants, especially in a rainy season.

Question: How about spraying or dusting for bugs?

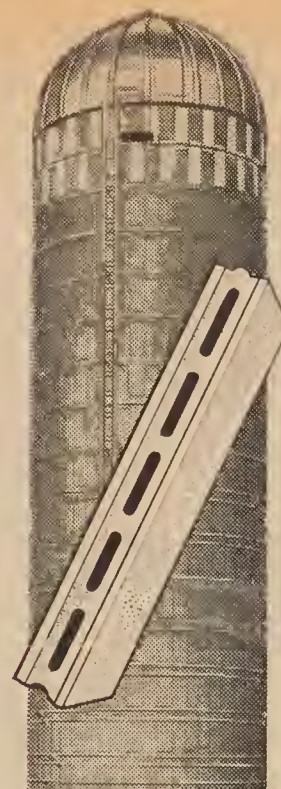
Answer: Dusting is an older practice than spraying and is preferred by many because no water is added and it takes less time. A small garden can be maintained by using a general purpose dust, but a larger garden needs sprays.

I prefer spraying. When large puffs of dust drift in the wind, it's money wasted. Buy a good sprayer or duster, since cheap equipment is short-lived, less efficient, and more expensive in the long run.

(Continued on page 32)

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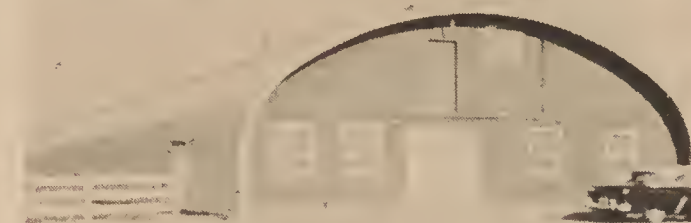
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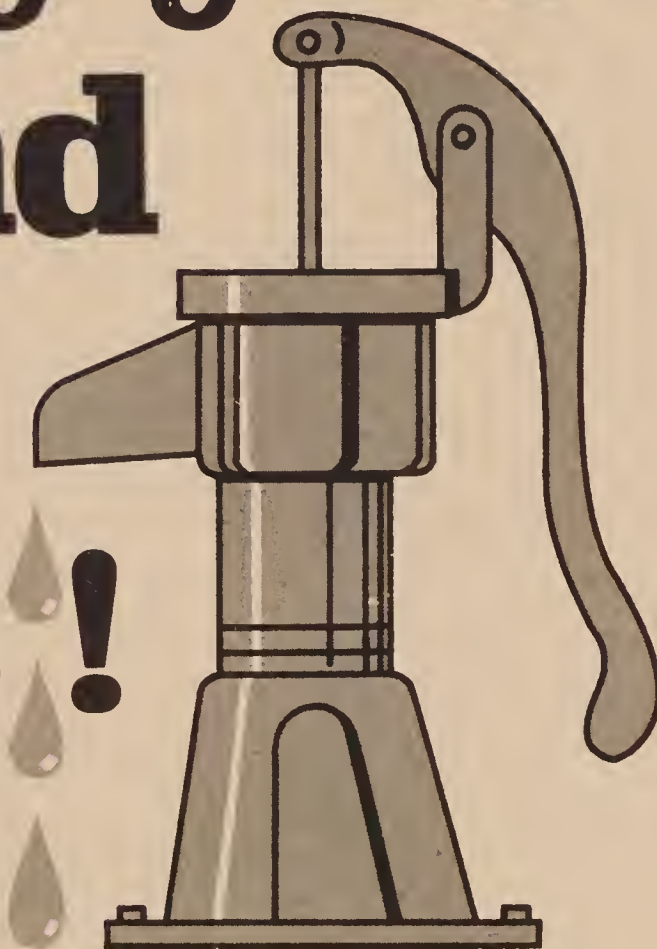
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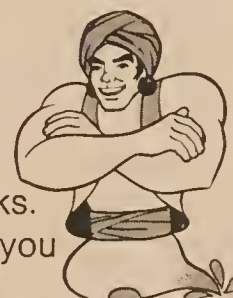
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Doc Mettler Comments on:

A LAME HORSE

WHETHER it be early in the morning when your eyes are still sandy from sleep, or late in the evening when you return home so tired you can hardly lift one foot ahead of the other, the friendly nicker from a horse can make you feel happy to be alive.

He will say, "Welcome home, I'm hungry" . . . and you feed him. When he begins to nod his head as one foot strikes the ground, you know he is trying to get the weight off that foot by lowering his head, and he needs attention.

Most everyone who has a horse knows that on the first sign of lameness, a check of his feet may reveal a stone or stub picked up on the trail, and its removal with a hoof pick will end the problem. When the lameness is not from an obvious cause, what do you do? The usual answer, of course, is that you call your veterinarian.

The less experience you have had with horses, the more advice you will get from well-meaning friends . . . some of whom will say try this or that, and if you wait a few days your horse will get better. I will admit that in a mild lameness . . . in fact, in most lamenesses . . . time will bring recovery, or apparent recovery. However, unless you know **why** your horse is lame, waiting is not wise. If you do wait and your horse gets worse, treatment and recovery may not only take longer, but may be impossible.

A full discussion of lameness, its cause, symptoms, treatment and prevention, is more than we have time for here, but I am writing about what you should do when you call your veterinarian to assist him so that he can more easily make a diagnosis.

Call Early

First, of course, is what we have already discussed, and what is true in all diseases . . . call early. When you do call, make it clear to the person who answers the phone what the problem is, how long the horse has been lame, give a brief description of the lameness, and . . . most important . . . tell him when you will be home to assist the veterinarian.

A horse that suddenly goes lame could have a nail prick or a puncture. The sooner this is treated the better. Even if your horse has had permanent tetanus antitoxin, a nail prick or puncture can lead to serious infection if neglected.

Diagnosis of lameness is as much an art as a science and there is a great deal of variation in the skill of one veterinarian as compared to another. However, the best lameness diagnostician going cannot do much without your help. Conversely, most veterinarians doing horse calls to-

American Agriculturist, May, 1971

day can give a good account of themselves if you follow a few simple rules and help them.

I want to repeat, let the veterinarian know when you will be home so you can help him. Have the horse confined and a halter and lead rope or shank handy. Give the veterinarian a complete history of the case, and of any unusual circumstance just prior to the lameness. Tell him if it appears to be a hot or cold lameness. A hot lameness gets worse as the horse works, and a cold lameness improves with exercise.

Some veterinarians like to look at the horse in his stall and observe how he stands. Certain lamenesses, such as navicular disease, can be spotted by the way the horse rests in his stall.

Next, your veterinarian will want you to take the horse out of the stall and walk him. Then he will want you to jog him, turn him, go up and down slopes, and may want him under saddle or in harness. You may have to move him from soft ground to hard to get him to show the lameness.

Very often you may find that your veterinarian will not agree as to which leg your horse is lame in. This is especially true of mild lameness, and in gaited horses showing lame on only certain gaits. For me, the Tennessee walking horse with a slightly lame rear leg is almost impossible to spot.

Your Shoer

Removal of the shoe from the affected foot . . . and a complete search of the hoof . . . are necessary in most lameness cases. Some veterinarians prefer to be at your place to examine a lame horse at the same time your shoer is there.

A competent horseshoer often is a good man to detect lameness causes, too. You will find that your veterinarian will respect the advice of a good horseshoer, and vice-versa. I would not expect a veterinarian and a horseshoer to always agree on a diagnosis, but they should always respect each other. Both have much to learn from each other. In fact, a veterinarian or a shoer who has nothing more to learn about lameness and correct shoeing does not exist.

X-Rays

X-ray of a lame horse is not always needed, but is probably more often needed than it is done. X-ray usually does not tell a veterinarian much he hasn't already guessed, but it may confirm a shaky diagnosis . . . or pinpoint the trouble when a general diagnosis is all that can be made.

A negative X-ray does not mean the veterinarian is wrong. Often, lesions that can be seen by X-ray don't show up until calcium deposits develop . . . sometimes weeks or months after the lameness starts.

If your veterinarian has to X-ray your horse, he will want a good source of electricity and usually a second person besides yourself to assist. Again, getting good X-rays under field conditions is as much an art as a science.

A recent diagnostic aid consists of taking moving pictures and playing them back slowly. I have had no experience with this, but would

imagine it should be a great aid in diagnosing certain lamenesses.

Your veterinarian may use a hoof-tester to put pressure on certain parts of the hoof. He may hold one leg of the horse up and then after a time put it down and have you trot him.

During all this time, he may take time to explain why . . . or he may not say a word, wanting time to think and reason out the case in his mind before he commits himself. You can help him by not saying anything to distract him while he is thinking.

Another diagnostic aid, though seldom used on the first call, would be to use nerve blocks. This simply deadens a certain part of the horse's foot by anesthetizing a nerve for a

short time. As you can imagine, this is a valuable means of pinpointing the location of pain.

If, after all this, your veterinarian tells you he does not know what the trouble is, but to wait a few days and let him know what happens, don't feel that you have wasted your time. I could have more confidence in a veterinarian who was sure of only one thing . . . that he did not know . . . than one who came up with a pat answer, but actually was depending on nature to heal a lameness so he could get the credit.

No Alibis

If the horse doesn't get better in a week, the veterinarian who says he did not know the first time may have a lot more to go on . . . and

he doesn't have any wrong answers to alibi out of.

Once your veterinarian has come up with a diagnosis, follow his directions to the letter, and let him know how your horse progresses. More times than not he will prescribe rest as the only cure. A slow, permanent cure with rest is far better than a quick temporary cure with nerve blocks, pain killers, etc. Don't be impatient.

At a later date, I would like to discuss fractures on these pages. As you may know, it is no longer necessary to destroy every horse or cow that breaks a leg. In the meantime, I hope you don't have any lameness problems . . . and that this will be a summer of pleasure for both you and your horse.

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Farmers Talk About

SELLING LOTS?

"Suburban housing and farming don't mix," comments a large-scale dairyman who innocently sold an unproductive acre on the corner of his property for a building lot.

The buyer, who had lived in the area for years, filled in the low spot and built a nice home; that's when the trouble began. When he graded around the house, the low spot moved out into the cropland . . . about half an acre of it . . . so the dairyman had to dig a drainage ditch before he could plant. Too,

when the cellar of the new home filled with water, the owner pumped it out into the field.

But this was only the beginning! The new neighbor tried to put a halt to manure spreading, and attempted to get other neighbors in a nearby housing project involved. He complained that the spreading operations were dirtying up his wife's sheets on the line.

Next, the newcomer's dogs messed up the dairyman's lawn. "If my dog went over to his house he'd shoot

him," the dairyman commented. "But his dog is allowed to go anywhere because he's considered better-mannered!"

"Suburban neighbors have a tendency to blame the farmer for their problems," he continued. "One windy day a truck spread lime . . . and the wind didn't stop at the edge of my land! The neighbor had his windows open and his house was filled with lime. This was unintentional, of course, but he billed my insurance company."

Another nearby dairyman was a little careless when he unloaded his honey wagon and it spilled on the highway. In this area, even staining the street with mud from fields is a court offense. It's called "creating a hazard."

The police served the dairyman with papers and he lost two valuable days in court, plus lawyer's fees. The case was finally thrown out of court on a technicality . . . the police hadn't checked out the complaint.

"If you sell lots for housing," another dairyman warns, "don't sell too close to the barn or eventually you'll get barn 'air pollution' complaints."

He tells of one large dairy farm that was put out of business entirely because of manure odors. The prevailing wind blew directly into town. "Larger animal units have to spread manure year-round," he explains. "Public sentiment was so strong he couldn't spread unless it rained. The dairyman was forced out of business."

He warns not to mix housing with crops. For instance, he must be extra careful when aerial spraying for spittle bugs so the spray doesn't drift near houses. He claims more housing is needed, but not where it will interfere with agricultural business.

"If you want to sell housing lots, you'll have to take what goes with it. If you're in farming, forget housing and stay with your crops. I'd rather quit farming than sell another lot!"—*Charles L. Stratton.*

Garden

(Continued from page 29)

Question: How about natural or biological control?

Answer: There are possibilities of controlling insects by making use of their natural enemies, such as trichogramma, the tiny natural enemy of the apple worms, and all other members of the Lepidoptera order of insects (moths and butterflies). Lady bird beetles (ladybugs) are useful in destroying aphids, and many are using a mulch of aluminum foil to repel aphids.

Some gardeners use scented plants such as marigolds to ward off insects. Others use garlic and onions. Also experimental are programs of male pest sterilization. As yet, such programs are not completely adequate, but they are worth trying.

Question: How about wildlife control?

Answer: Rabbits, woodchucks and other pests are best fenced off. Some gardeners use an electric fence to keep coons and possums out. One reader tells us he has good luck by letting a kerosene lantern burn at night in the corn patch. Best bet for birds is to use nylon netting over entire crop of raspberries or fruit. A transistor radio blaring out rock and roll music will do a lot to keep birds out of the strawberry patch (I can see why!).

Just remember this about vegetable gardening. It's not only a weight reducer; it is also a sleep inducer, it saves you money, and you eat better to boot! Start gardening, even if you have only a postage-stamp size plot.

Spreading It Thick!

We're sorry for the error in our March "Garden Talk." Under **Spindly Rhubarb Stalks**, the copy should have read "Rhubarb likes big doses of rotted manure or compost material, 3 to 6 bushels per 100 square feet. . . ." (not per square foot). We admit that would be a lot of manure!

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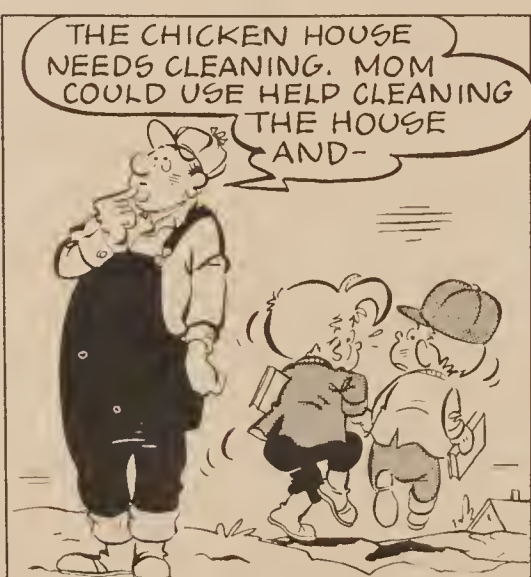
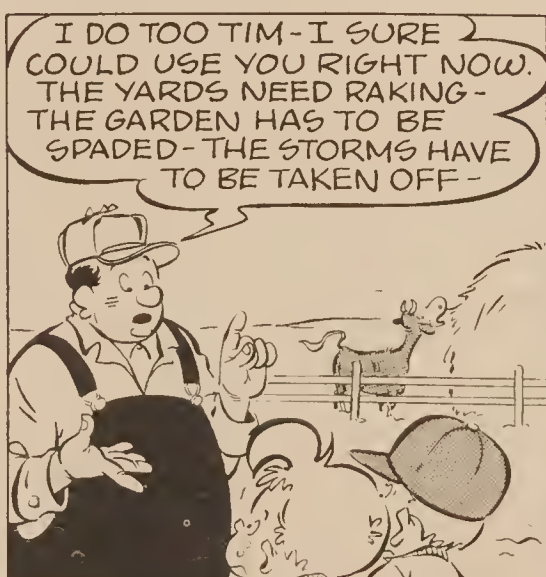
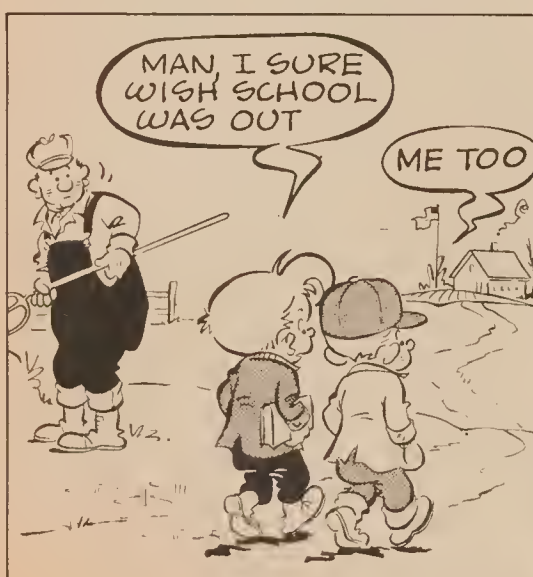
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ADA MEETING

I read and studied with interest your editorial in regard to the sites of the National Dairy Council annual meeting, and the American Dairy Association annual meeting. You raised some points which I believe call for clarification.

As you may recall, the boards of directors of American Dairy Association, National Dairy Council, Dairy Research, Inc. and United Dairy Industry Association met concurrently in Buffalo, New York, in September, 1970. As you can imagine, we were involved in making the arrangements for the combined national meetings to be held here in New York State.

The meeting was held at the Statler-Hilton Hotel in Buffalo, New York . . . the only hotel with adequate meeting room facilities and adequate number of sleeping rooms to handle a meeting of this size available in Buffalo . . . and a hotel which, I do not believe, you would classify as a "plush hostelry"! The facilities were extremely adequate, but the rate at the Statler-Hilton for a double room happens to be only \$1.00 per day less than at the Americana Hotel in Miami, Florida.

Not Costly

At the same time, the rate at the Statler-Hilton for one double room is \$2.00 more than at the Conrad Hilton in Houston, Texas. My point is that the convention rates at hotels where national meetings have been held recently could not be classified as exorbitant.

On the other hand, if we had held the meeting last fall in New York City, and had avoided the "first line" hotels and used one of the older "second line" hotels, the rate would have been \$11.00 per day more in New York City than was paid in Buffalo and, therefore, obviously more than is being paid in Miami or in Houston.

The other point which I wish to mention is the fact that there is a specific purpose in mind for rotating these national meetings around the country to various locations. When the national meetings were held in Buffalo last fall, there were far more dairy farmers from the northeastern states in attendance than there were from the far western states or the southeastern states. It allowed dairy farmers from one of the heavy milk-

producing sections of the country—the Northeast—to attend and learn more about their organizations.

National meetings have been held during recent years in Minnesota, California, Ohio, Massachusetts, Virginia, and this year in Texas and in Florida. Florida cannot be considered only a resort area; it is rapidly becoming a large dairy-producing state in the country.

The final point I wish to mention in regard to these national meetings is the business conducted at the meetings. I have in front of me, for example, the agenda for Wednesday, April 7, and it starts with a breakfast meeting of the board of directors of American Dairy Association at 7:00 a.m. The breakfast meeting is followed by a general session of the board and delegates (and all non-voting dairy farmers in attendance) which lasts through lunch until approximately 1:30 p.m.

At 2:30 p.m., an open session of the board of directors of United Dairy Industry Association has been scheduled which should adjourn at approximately 5:00 p.m. At 7:00 p.m., an open session of the board of directors of Dairy Research, Inc. has been scheduled with conclusion called for 10:00 p.m. This truly must be called a **working** meeting.—*John W. Sliter, General Manager, American Dairy Association and Dairy Council of New York, Syracuse, New York.*

TRIBUTE TO ED

I was very sorry to hear of the passing of Ed Eastman. For six years, I have received the magazine and always looked forward with excitement to Ed Eastman's page.

The family life that was his early life on the farm gave him the reality and earnestness that has so passed from the scene in this automated, fragmented, and neurotic age of which we are all now a part. We cannot bring back much of the quiet rural life, but Ed Eastman by his writings greatly helped us to share his life's experiences and philosophy.

I hope that AMERICAN AGRICULTURIST will seek to continue to uphold the simplicity and personal interest which I feel has made yours an outstanding magazine. Surely a great lover of people and of God's nature has passed on . . . may his writing continue to make many happy.—*Edwin Jackson, Madison, New Jersey.*

Editor's note: We have received many similar letters paying tribute to the late Ed Eastman . . . all testifying to the sense of loss felt by readers when "Ed Eastman's Page" began to be missing from American Agriculturist. Nearly all these letters testified also to their enjoyment of Ed's last book, "Journey to Day Before Yesterday" . . . an effort that he often mentioned as being one of his most satisfying accomplishments.

MARITAL RACE TRACK

By D. A. Hoover

"Horse Sense,"
The little woman brags,
"Is what keeps wives
From being nags."

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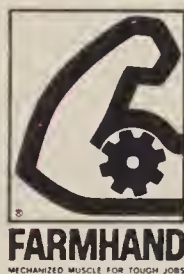
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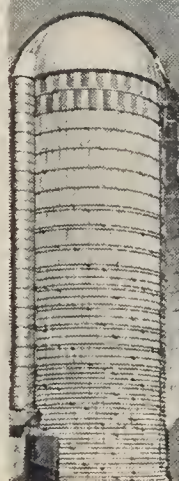
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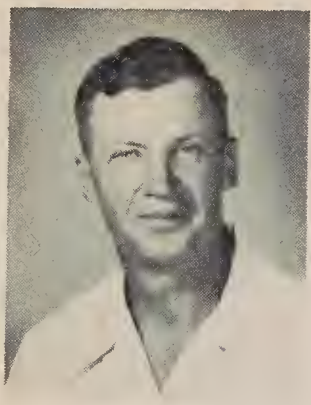
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Gayway Farm Notes

by HAROLD HAWLEY

SELF-PROTECTION

WAS the time when the "Buy America" slogan made good sense to me. It seemed right to patronize those who were our friends and neighbors, near and far, and who constituted our market. However, as wage rates have gone up and up and labor productivity has declined, the cost of many domestically produced goods has risen prohibitively. This makes no mention of a decline in quality which applies to some items we buy.

With costs rising faster than selling prices it behooves one to take another look at this notion of buying at home. We've never been quite a purist on this, having once tried Belgian barbed wire which was cheaper and much poorer. We've used European twine for a couple of years and find it satisfactory both as to quality and price.

Prices Up

We've seen plow points, shin pieces, etc., rise in price more than we think we can stand, even with bulk buying. Last year we bought other than the "brand name," which made for a saving. This year we are using a few pieces from South Africa — enough to find out if the saving is as great as the price suggests. Of course, if the quality isn't comparable just getting a low first cost will be no saving.

What we really are seeking is a way to offset the higher and higher costs. We keep watching with great interest a relatively small farmer buying co-op which is saving important money for its members on purchases of fertilizer, seed, livestock drugs, medicines, and various other supplies.

They operate like GLF did when I was a kid. Buy on order, deliver off the truck or car for cash, low overhead, low markup, real savings. Of course, their inventory policy isn't all that good, but that's true of many of the outfits who've been doing business for years.

I guess it all boils down to the fact that everyone who expects to stay in business has to re-examine all his sources, his buying habits, and his marketing methods. It's great to be loyal to the local dealer and to support the co-op outlet nearby and to patronize the guy who is an old family friend. Some will say that if we don't support them they will be gone someday and then what will we do. The obvious answer is that if they can't do the job as efficiently as others, both they and we will be in trouble if we continue to do business together.

We've long thought cooperative effort offered the greatest hope for savings, both in purchasing and marketing. One of the terrible consequences of trying to get size enough in any business to achieve the effi-

ciencies that size can give, is the loss of personal contact, concern, and responsiveness to the members and/or customers that the business was set up to serve. This may not be inevitable, but great size seems to bring slowness of response and a concern for departmental profits rather than a desire and willingness to put the welfare of the members first.

Keep Trying

We see corporations and cooperatives doing and trying many things far afield from what they started out to do. Likewise, many farmers and farm organizations are trying and will try to do things not much a part of their original programs. It is a desire on the part of all to get volume; to try to cut costs either by eliminating some margins or by doing the job better than the present outfit is doing. In the same way we see attempts to improve market returns by group contracting, negotiating, by changing the place and manner of sale and delivery, etc.

The day seems to be forever gone when we can afford to support the status quo. We'll all be looking for the better way, the better source, the lowest cost and greatest return. Those who find the right answers may still be around to remember the good old days when margins were larger and it wasn't prohibitive luxury to continue to do business with your long-time suppliers and buyers regardless of their efficiencies or lack thereof.

TIME'S A-WASTING

Eight or ten years back the government farm program contained provisions for support prices for wheat. Roughly, prices then were 60 or 75 cents per bushel higher than now. The number of wheat growers in our county reached an all-time high. Everyone wanted to grow as much wheat as his allotment allowed in order to: (1) make an almost guaranteed profit at the support price and (2) to protect his allotment.

When the program was changed and the support price lowered, the number of wheat growers dropped dramatically. This was as it should be. Wheat at competitive prices was not all that profitable. Other areas can grow wheat cheaper than we can.

Wheat (sometimes oats) was the standard nurse or companion crop in establishing a stand of alfalfa at that time. The drastic cut in wheat acreage necessitated a change to some other way of starting an alfalfa stand. Oats were used as a companion crop...not always too happily as the new Flemish alfalfas grew so vigorously that they interfered with oats harvest.

The next step was to clear-seed

alfalfa in a firm seed bed. What did this do to the time of planting? Naturally, a field will not be ready to receive alfalfa seed until a whole lot later than when it was broadcast on a wheat field. We used to think we should be done grass seeding by March 25. At that time, we ordered the seed in January so as to get the early-order discount.

Just to show how the change in seeding practices disrupted long-established schedules, this year it was the 18th of March before a price was announced and the price at that time carried the early-order discount!

SIGNS OF THE TIMES

Many is the lad who got his first bike with money earned by the sweat of his brow on a neighbor's farm. We just turned down a chance to hire an enterprising youngster who wanted summer work...and we could have used him.

The restrictions as to when and where we can have him work are such that we just decided not to hire him. It's a crying shame when an ambitious kid can't get work because somebody wanted to "protect" him so thoroughly as to insulate him from almost all farm employment.

We've no quarrel that kids shouldn't be used in hazardous jobs. Guess the whole thing boils down to the fact that...under reasonable supervision and training...many of these kids can safely do many of the jobs they are legislated out of.

MAMA SHOULD KNOW

My boss at Swift and Co. some twenty-five years ago was an economist who specialized in researching and forecasting livestock and meat prices. He was a price analyst and his wife was about as mystified as to what he really did as most other people would be. It wasn't really too serious that she didn't know his business. So it must be with thousands of women whose husbands hold the myriad of jobs which need doing in our complex society.

Contrast that to a farm wife. Her city counterpart had no part in her husband's job and whereas none of the family treasure was invested in the business, her only concern was that he have steady work at a rate that would hopefully keep up with their rising standard of living. The farm wife in most cases knows a fair amount about the kind of farm operation her husband runs. This varies all the way from the gal who has nothing to do with the activity beyond their kitchen door to those who work at various farm activities regularly.

Even more important, most of the family treasure, both present and future, is tied up in the farm operation. Milady has reason to be concerned, not about the regularity of employment, but about the profitability of the business. Because she may someday become the owner and operator of this business as surviving spouse, she has some very compelling reasons to know a great deal about how it is run and what it takes to make it turn a profit.

One of the great tragedies on some

of our farms is the wife's inability to even protect her investment, much less maximize her returns from it in the event of her husband's unexpected and untimely death.

No one likes to contemplate such things, but it is an exceedingly important matter that farm wives know the score about the family business, debts, credit sources, tax matters, labor policies, and rental agreements as well as a general knowledge of how to keep the business going until she can make some intelligent decisions about a sale, hiring a manager, taking in a partner, or whatever.



FOREVER WILD

We have about despaired that any change might be made in the "forever wild" Adirondack forest preserve concept. Almost all authorities on wildlife management agree that a sustained yield forest will not only produce valuable timber but will sustain a much larger wildlife population. Forever wild means the trees are left to grow, mature, and rot away instead of being cut at maturity under strict supervision and new trees planted to replace them. A mixed forest growth of young and mature trees provides cover and food for many more birds and animals.

Well, as we said, we doubt this will be changed. Now comes the proposal of the temporary Adirondack study commission. They propose to introduce extinct species of wildlife which once roamed the Adirondacks. This would include timber wolves, moose, wolverines, panthers, lynx, caribou, elk, and puma. Stocking of marten, eagle, grouse, loon, and raven also is recommended.

If some of the carnivores they propose to stock prospered, the forest preserve could come to be quite a nuisance to the residents in and around it. A wolf, wolverine, or puma can hardly be expected to "stay put" and the conflict between them and owners of any kind of livestock is a long and bloody one.

Some people have maintained that predators keep the deer herd healthy and down to size. Possibly so. Maybe hunting according to the size of the crop to be harvested would do the same thing. The conservation people frankly say the deer herd will never be as large as it was three or four years ago. The habitat simply won't support more deer, especially as the forest matures.

Now we'll add a few competing species such as elk and moose, plus a mixed bag of predators, and what have you got? Less hunting we'd guess, plus a hue and cry from those whose pet pony or heifers come into contact and conflict with the creatures which man drove out once in order to make himself an environment to his liking.

All sentimental nonsense to the contrary, it's not possible to provide "lebensraum" for over 200 million people in this country and still retain all the wild creatures that were ever here — nor do I think it is desirable.

American Agriculturist, May, 1971

ALEXANDER SALES

"Last October I sent an order, which totaled \$7.26, to Alexander Sales Corporation in Mount Vernon, New York. I have never received the merchandise and I have written them three times without getting a reply.

"I had sent a money order, so had the Post Office put a tracer on it and found the money had been paid to them. I would appreciate it very much if you could find out anything about this for me."

Alexander Sales Corporation has advised us that on February 4, 1971, they filed for relief under Chapter XI of the Federal Bankruptcy Law.

They tell us they are now going through a period of reorganization and are continuing in business pursuant to court order. This, they hope, will enable them to serve their customers again in the future.

They say, because of the reorganization, there will be a delay of several weeks before they will have more complete information.

CANADIAN PROPERTY

"I am thinking of buying extensive property in Canada and, not being familiar with Canadian real estate, I would appreciate any advice you might offer."

Our primary advice to anyone buying real estate is to never buy sight unseen. If you cannot inspect the property personally, have someone do it in your interest. When a decision to buy has been reached, you should have your lawyer handle the transaction.

Meantime, you might be interested in a book, which has recently come to our attention, called, "Canadian Real Estate — How to Make It Pay," by Richard H. Steacy. It is published by MacLean-Hunter Ltd., 481 University Avenue, Toronto, 101, Canada. The author is a real estate broker in Canada and the book should contain some interesting and practical advice.

CERTIFICATES

"I have been trying to get a copy of my aunt's birth certificate for her. So far, I have written three places without success..."

We gave our reader the information about whom to contact in this particular case.

If you would like information regarding where such records can be obtained, the cost, and other general facts, send 15¢ to: Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. Ask for pamphlet "Where to Write for Birth & Death Records," Catalog No. FS2.102:B 53/3/965.

RISKY

"I sent \$2.00 to the _____ Company in November, and I have never received the merchandise. I have written them and they claim they never received the money. Is

American Agriculturist, May, 1971

there anything we can do?"

Unfortunately, our subscriber sent cash in the mail, which is always risky. He has no proof that it was received, and the company has no record of the order.

The company asked that we urge our readers not to send cash in the mail. It may be lost enroute and they say, even if the cash reaches them safely, it can easily lose its identity—that is, be separated from the order leaving no way to check it, and perhaps even be credited to someone else's account.

They ask that, in fairness to the company, customers send bank or postal money orders or personal checks. Then, the customer has proof of payment or, if lost, payments can be stopped.

NO HELP

"A few years ago, my parents bought tile for the floors in our house. A month later, it cracked in one place and has been cracking ever since.

"A company representative was here and he said the company could not replace the tile or refund our money. Is there anything we can do?"

We can't be of much help with complaints such as this, when a product does not live up to expectations. Many times, although the product is guaranteed by the manufacturer, they may claim that the installation was faulty. From a distance, it would be impossible for us to know or prove whether the product or the installation was defective.

ADDRESSES WANTED

Raymond Hodgkins, formerly of Front St., So. Portland, Maine.

* * *

Susan Wilt, who graduated from the Washingtonville Central School.

* * *

Alice Bloom, formerly of Catskill, N.Y.

* * *

John Joseph Kelliher, born at Methuen, Mass., in 1896.

* * *

Ruth Moyer Butler or her brother, William Butler, who lived in Sugar Hollow, near Tunkhannock, Penna.

* * *

Clarence, Grace, Edna and Frank Pitcher, children of Henry Pitcher, formerly of Chicago, Ill.

* * *

Mr. and Mrs. Lawrence Henry Mayer, formerly of Oakton, Va., possibly now in Florida.

* * *

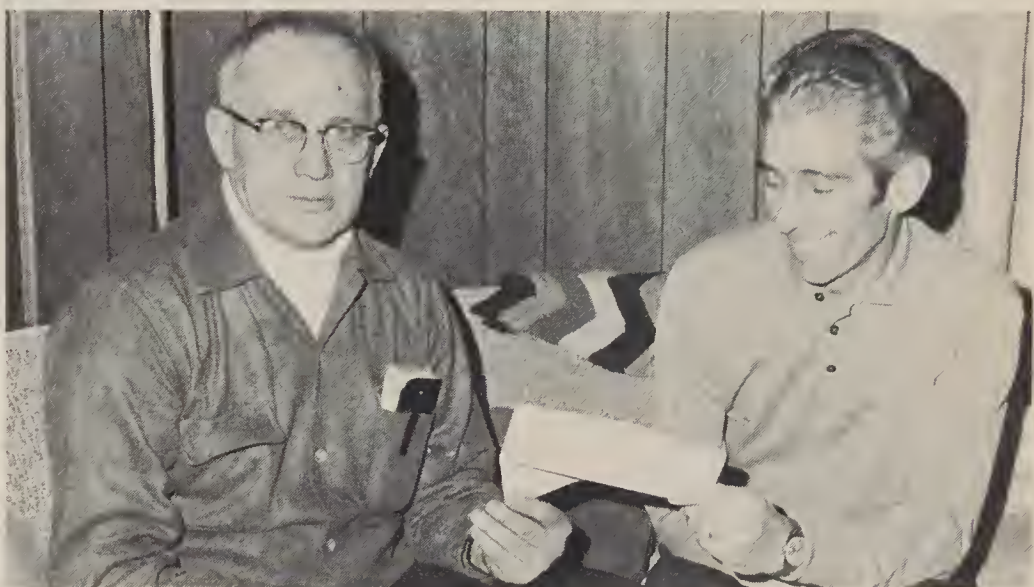
Heirs of Reuben Dudley, who once lived in Troy, Penna.

* * *

Any member of the T. John McKee family, formerly of Homer, N.Y.

Farmer Survives
Tractor - Truck Crash

Ellsworth "Sam" Davis of Cuba, N.Y. was driving his tractor home from a nearby woods when he was struck from behind by a pick up truck. He suffered multiple fractures of the jaw, cut face and injuries to his head, chest and foot.



Agent Chuck Nalbene of Jamestown, N.Y., right, delivered a payment of \$1581.76. Mr. Davis took the combination of N. A. policies in May — in less than six months his accident happened, putting him in the hospital for eleven days and off work for twelve weeks. He drew both medical expense benefits and weekly income benefits. This is his letter of thanks:

"I am thankful my wife decided to take out accident protection for me when Mr. Nalbene was here. I appreciate the prompt settlement of my claim. North American was a big help to me as it has been to many of my friends and neighbors in the past. I recommend it very highly."

Ellsworth Davis

OTHER BENEFITS PAID

Guy E. Hamilton, Jr., Belfast, N.Y. \$ 128.56	John F. Schreiber, Florida, N.Y. \$ 105.72
Slipped under mower—cut hand	Fell off tractor—injured leg
Donald W. Paxton, Binghamton, N.Y. 235.85	William Putnam, Kent, N.Y. 578.56
Hit by car—injured knee	Auto accident—broke arm
Alan J. Slater, East Randolph, N.Y. 927.28	Virginia Perlet, Mexico, N.Y. 299.98
Caught in chopper—injured hand	Auto accident—cut head
Francis R. Smith, Auburn, N.Y. 2140.00	Marguerite Famulare, Rich'd. Sp., N.Y. 1200.00
Fell from corn crib—mult. inj.	Auto accident—broke arm, teeth
Lillian J. Morse, Sherman, N.Y. 878.65	Gerald Meacham, N. Lawrence, N.Y. 158.56
Slipped cleaning windows—inj. shoulder	Crushed by cow—injured hip
Jesse L. Snell, Elmira, N.Y. 217.28	Ava R. Widrick, Heuvelton, N.Y. 1159.12
Repairing auger—cut finger	Knocked from wagon—broke arm
James H. Smith, Greene, N.Y. 270.00	Lois L. Rosa, Sharon Springs, N.Y. 240.05
Pinned by cow—injured rib	Chain saw accident—cut hand
Leonard Rabideau, West Chazy, N.Y. 1271.42	Stewart Fleischman, Atlanta, N.Y. 222.13
Clothes caught fire—burned legs	Logs rolled—injured ankle
Gabriel Kiss, Cincinnatus, N.Y. 329.25	Jerald Lewis, Jasper, N.Y. 218.56
Slipped on grass—broke ankle	Sliding into base—injured knee
Fred Butler, Walton, N.Y. 643.75	Verna Letts, South Lansing, N.Y. 1156.42
Fell from truck—broke leg	Auto accident—broke jaw
Davis C. Aubrey, Burke, N.Y. 283.57	Richard Herman, Ontario, N.Y. 412.58
Hit by cow—broke ribs	Playing soccer—broke leg
James O. Johnson, Basom, N.Y. 261.41	Jonathan C. Stroud, Portageville, N.Y. 1855.00
Hit by tire iron—injured ankle	Thrown from horse—head injuries
Bessie D. Glover, Dolgeville, N.Y. 323.93	Carlton B. Cole, Wyalusing, Penna. ... 1000.00
Stepped on piece of metal—broke ankle	Putting log on truck—broke ribs, pelvis
George Sheldeldine, Lorraine, N.Y. 285.72	Hendrik P. Leendertse, Pittstown, N.J. 2897.17
Knocked down by cow—inj. shoulder	Caught in corn picker—inj. hand
Edna M. Sturtze, Castorland, N.Y. 304.49	Wm. Cappussio, Jr., Hamonton, N.J. 1835.71
Slipped on rug—injured hip	Slipped off sprayer—broke hand
Richard Gorczyca, Turin, N.Y. 417.90	Nona T. Lea, Rockland, Maine 560.00
Slipped and fell—broke fingers	Pedestrian accident—broke leg, ribs
John W. Palmer, Georgetown, N.Y. 879.70	Leslie G. Thrasher, Rindge, N.H. 192.72
Slipped and fell—inj. shoulder, arm	Caught in draw bar—cut finger
Rudy J. Gruner, Esperance, N.Y. 154.56	Vincent Boudette, White River Jct., Vt. 1190.00
Bale of hay fell—injured knee	Ran over by tractor—broke ankle

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4-row wide Superpicker cornhead. One way to increase combine capacity is to reduce the amount of trash you put through it. So, we turned to the Cornhead most farmers agree is most efficient. Superpicker. Proven snapping rolls move ears off fast — reducing stalk breakage, minimizing excessive trash. Result: the Uni "Corn Country" Combine does a better job in heavier corn than much bigger-capacity combines using stripper plate cornheads.



New Uni-Bin Stretcher. This unique rear transfer auger, installed on the grain tank of the Uni-Combine (or Uni-Sheller), moves the grain to the trailing wagon as you move through the field. No need to stop to unload the grain bin. You just fill the trailing wagon, and then stop only to change wagons. With a 3- or 4-row Uni Cornhead, plus this new Bin Stretcher, you'll have combine capacity you'll hardly believe!

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Coldwater, Ohio 45828



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JUNE 1971

For The
*Northeast
Farmer*

American Agriculturist

and the
RURAL NEW YORKER



EDITORIALS

by GORDON CONKLIN



IT ALL DEPENDS

It was a sunny day over Hiroshima, Japan, on that fateful July day in 1945 when the lone B-29 bomber streaked out of the blue high over the city. Something dropped from its belly, and the plane swung sharply away as though it were running from the gates of hell itself.

It was... for the fireball that was soon to ravage that unsuspecting populace was more terrible than man could then imagine. Nobody knows for sure how many civilians died in that terrible moment... and from its after-effects in months to come... but 100,000 is an accepted figure.

The crew of the plane received commendation for a successful mission.

Some months before, elements of the Third Army rolled across the nearly-defeated Third Reich in Europe. A reconnaissance platoon met stiff resistance from Hitler Youth and remnants of German army units in a small city. Pulling back, the Americans called for a massive air strike... and a thousand bombers leveled the city across the bodies of the cowering populace... and the grim advance of the victorious army rolled on.

It appears that in a "righteous war," men are decorated for massive killing of enemy civilians... but amidst what some label as an "immoral war," the same thing is severely punished. The degree of righteousness is judged by a populace almost entirely unacquainted with the fearful and bitter business of armed combat.

War is not only a brutal and terrible way to resolve human differences... it also creates strange and puzzling contradictions amidst the passing parade!

COW SITTERS

Dairy farmers have traditionally worked long hours, and for generations have suffered through periodic spells of low milk prices. However, the most important single drawback to the business has always been the fact that cows must be fed and milked every day of the year... including the weekends and holidays when most non-farmers loaf or travel. Dairy men... and especially their wives... have never relished the fact that "they're tied to a cow's tail."

Cooperative Extension agent Ted Greene of Jefferson County, New York, has been working on creating a "Cow Sitter Club." The thought is to create a pool of men and women with a background in dairying who would be interested in milking cows on a part-time basis. He has been able to recruit a number of people willing to hire out to dairy men to do milking for short periods of time.

An ideal system, of course, is to have a farm business big enough so the labor force of two or three full-time men has some flexibility about time off for one man at a time.

The very best relief milker is apt to be a man who has an ownership stake in the herd... or is at least related to the owner. Unfortunately, there are thousands of dairy men who have neither labor-force flexibility nor dairy-wise relatives.

My guess is that too many of these dairy men are overly conservative about how much they would be willing to pay a qualified milker for a few days. It pays off to get away from the shop occasionally, regardless of what line of work you pursue... and it's also important to take the lady of the house for a morale-building trip now and then.

Sure, most dairy men are very fussy about the milking procedure... knowing that an unskilled milker can quickly create herd health and production problems that may take months to correct. This is all the more reason to hire only a competent relief milker... and pay enough to get one!

NEW MODEL

Farmers are constantly updating their farming techniques... and the equipment they use in their businesses. The process requires ever-increasing amounts of capital, and this in turn creates the need to review the policies of lending institutions.

The Farm Credit Service has to rank as one of America's greatest success stories... launched with government "seed money," and growing to a financial giant that is a \$15-billion source of agricultural credit. Even more astonishing is the fact that Uncle Sam has been paid in full, and the FCS now runs its own ship without federal funds.

After a long study, a Commission on Agricultural Credit... chaired by Julian Thayer of Middlefield, Connecticut, recommended several changes that would provide the FCS with greater flexibility in making loans, broaden the eligibility for its loans, and enlarge the scope of services which could be provided by the Service.

Some farmers will resist the proposal that the FCS enter into the rural non-farm loaning business... believing that the farm-orientation of the organization will thereby be diminished. It's my opinion, though, that the proposed changes will benefit farmers as well as rural non-farmers... updating the procedures and services of an organization that has done an outstanding job across the years.

PROBLEMS AMIDST SUCCESS

For many years, the dairy industry of these United States has understandably sought to increase consumption of milk and dairy products. The assumption has always been that success in this effort would overcome problems of excess supply... and increase milk prices.

However, the experience of Finland raises the question as to whether high levels of milk consumption are necessarily associated with a rosy economic situation among dairy men.

Finland leads the world in per capita consumption of dairy products... its figure being two and one half times as much milk equivalent per person as in the United States. However, that Scandinavian country has dairy problems similar to ours... low farm milk prices relative to production costs, and an excess of production above domestic consumption.

University of Wisconsin economist Truman Graf reports that Finnish governmental expenditures for a variety of dairy-support programs amount to one-third of dairy farm gross income... but milk surpluses are still more than one-fourth of total production. This contrasts with U. S. governmental expenditures of only seven percent of dairy farmers' gross income, and a milk surplus of about five percent.

In a sense, then, Finland... with its unmatched levels of per capita dairy consumption... is further away than the U.S. from solving its dairy problem. This, in spite of Finland's soil bank program resulting in a five-percent reduction in cultivated acreage, a dairy-cattle slaughter premium of \$120 per cow, and a

modified supply-management program resulting in a five-percent reduction in 1970 milk production as compared to 1969.

I'm in favor of aggressive dairy promotion programs, and of well-organized efforts to develop new dairy products. However, I raise the question as to whether such programs by themselves will raise dairy-farm incomes to "adequate" levels... unless associated with some form of supply restraint. The capacity of American farmers to respond to upward price stimulus with massive increases of production is one of the marvels of our modern world!

Contrary to what some people are saying, dairy men in general across the Northeast are doing fairly well financially... at least compared to a few years ago. Crying poverty has traditionally been agriculture's favorite indoor sport... it's fun, but it sometimes insulates the participants from reality.

The reality is that current favorable milk prices may rev up milk production to create unmanageable surpluses... repeating the dismal price cycle so predictable in the past.

How can this be prevented?

THE GRASS AND THE SPEED

Enlightened parents have long sought to acquaint their children with facts about "the birds and the bees." Although it's something loaded with potential booby traps of uninformed emotionalism, sex education is a topic clearly needing discussion between understanding parents and their children.

Drug abuse is another topic considered by some as not being "nice"... and therefore ignored. But your kids shouldn't know more about drugs than you do!

For information on the subject, write to:

Questions and Answers

National Clearinghouse for

Drug Abuse Information

Box 1080

Washington, D. C. 20013

Ask for a copy of the booklet entitled, "Answers to the Most Frequently Asked Questions About Drug Abuse."

YOU CAN HELP

In these United States, supermarkets bulging with top-quality food are taken for granted. Tell the average American that his is the unique privilege of spending only 17 percent of his income for food... and he'll shrug, "So what else is new?"

But in much of the rest of the world, a man who knows how to grow things efficiently is widely appreciated. The "Green Revolution" is still more words than actuality, but it has made a start because of people with food-production know-how.

The Peace Corps, no longer a "kiddy crusade"... long on idealism and short on calluses... needs the assistance of experienced farm people in its efforts to help the hungry across the seas to fill their own bellies by better farming there.

For information on the wide range of possibilities for you to really become involved in one of the great humanitarian projects of our time, write: Frank Pixley, Room 336, Office of Volunteer Placement, Peace Corps, 1717 H Street, N.W., Washington, D.C. 20525.

THAT REMINDS ME...

A farmer participating as a member of a panel at a meeting of dairy men was trying to impress an audience that he had grown up in a very remote area... "away out in the boondocks," as he put it.

To reinforce his statement, he went on, "Why, we lived so far out in the country that we had to keep our own tomcat!"

American Agriculturist, June, 1971



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OUR COVER

June may be the official month to promote dairy products and strawberries ... but any month is a great time to enjoy these luscious treats. Photo: American Dairy Association and Sta-Hi Color Service.

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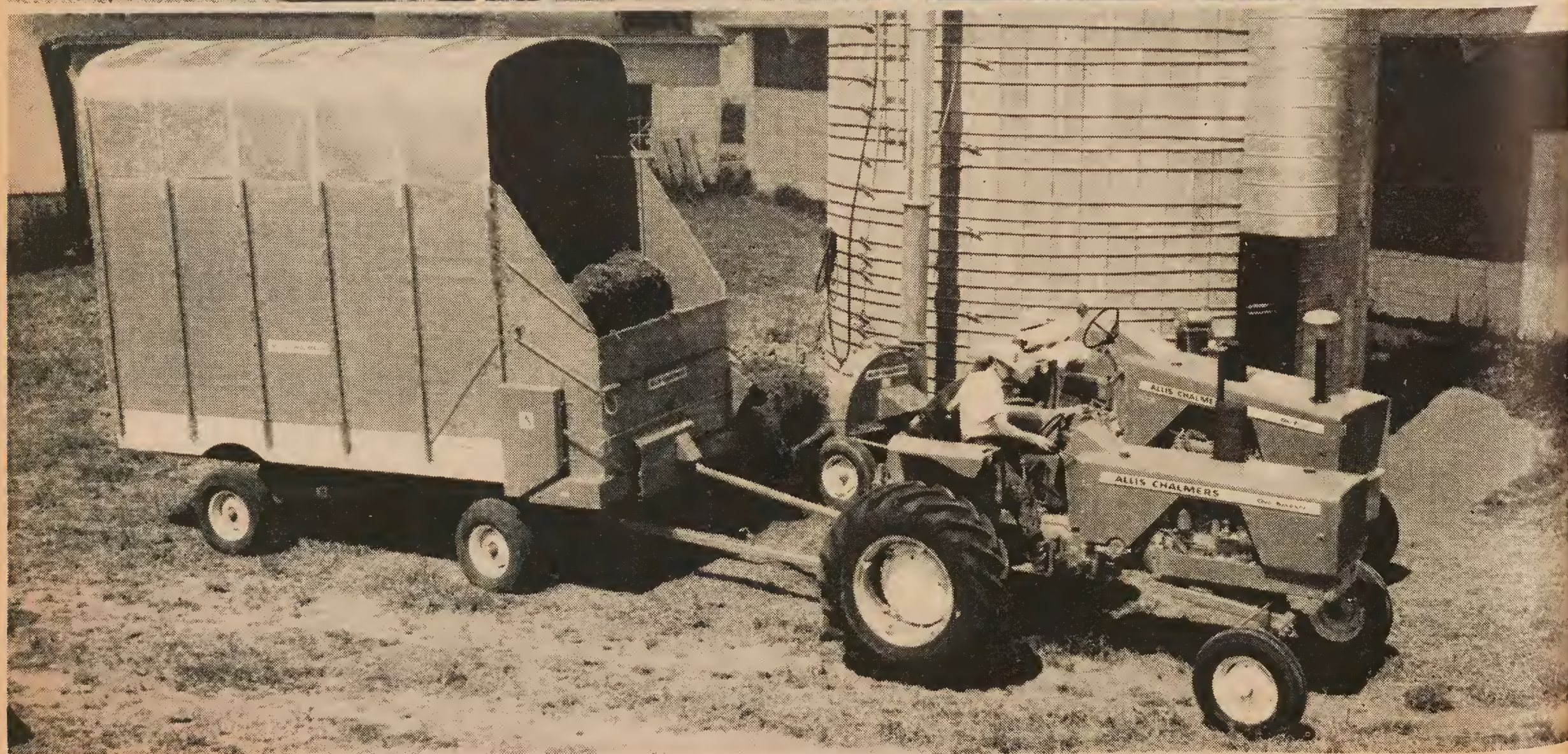
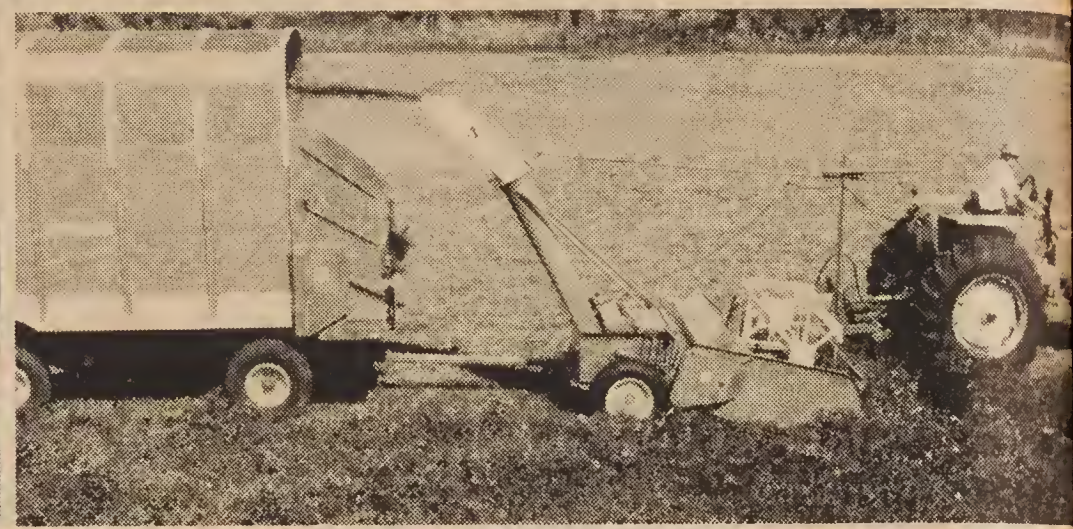
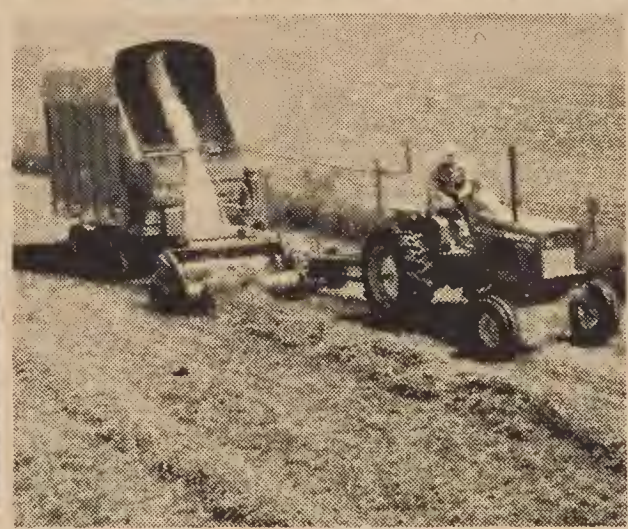
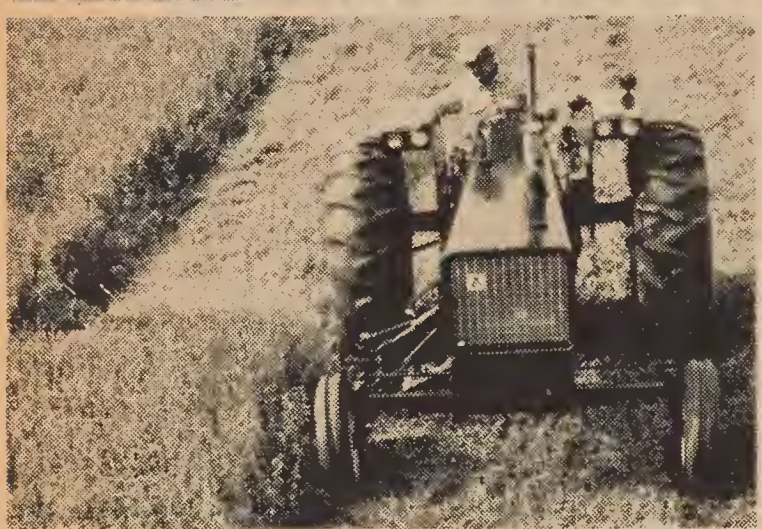
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"A reputation's a funny thing. You hear one name long enough and you begin to believe it's the only one that can do a particular job.

"That's how I felt about forage equipment before I bought. But I didn't put down dollar one until I made sure that system would do everything I required.

"I asked my dealer to show me the Allis-Chalmers Forage System in action. I checked out the competition. Then I bought A.C.

"What really made me buy orange was the completeness of their system.

"Now it's just cut, throw and blow. I cut, condition and store forage in one quick operation."

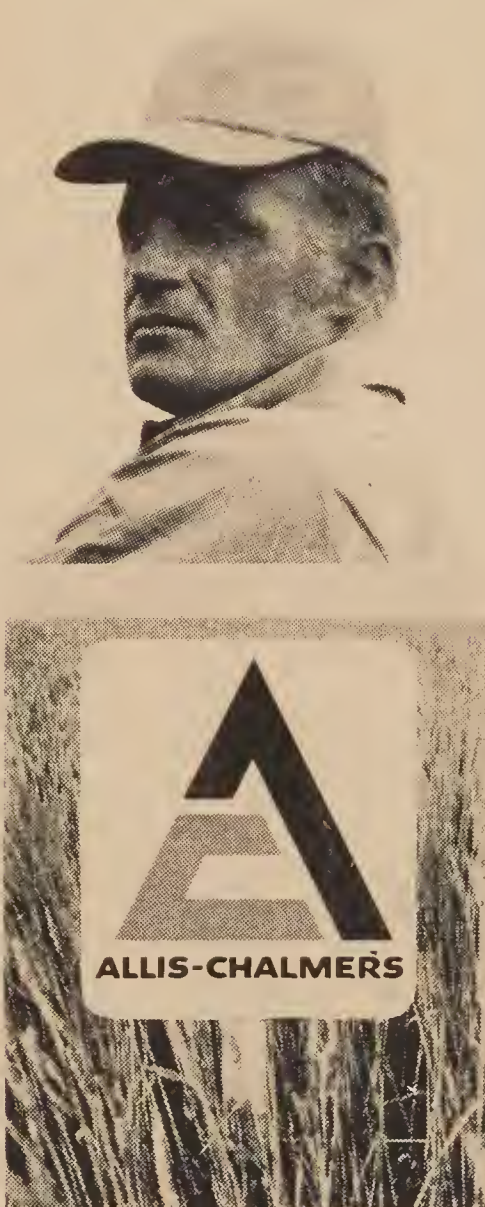
More and more big-acreage farmers are discovering the total capability of the orange Allis-Chalmers brand. Our forage system is a good example.

Mower-conditioner. Forage harvester. Power feed box. Blower. Mowers. Rakes. Row crop heads. You buy the complete system now. Or build up to it piece by piece.

Add-on convenience like this is typical of the brand that matches machinery to your operation. And stands behind that machinery with parts and service performance that keeps you in operation.

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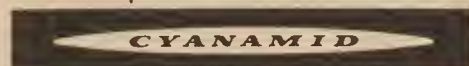
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So get after flies before they get after you—get Cygon 2-E! In pint, quart, gallon bottles and five-gallon pails.

Before using any pesticide, stop and read the label.

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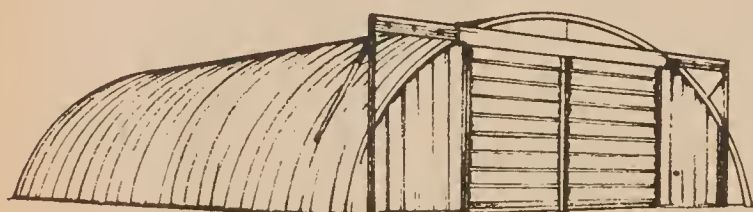


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Doc Mettler Comments on:

BONE FRACTURES

JUNE is one month of the year when you can go out to the barn in the morning and be reasonably sure you will not find a sick horse or cow. Trouble in June always seems to come as a surprise. A veterinarian's phone will not ring for hours . . . then suddenly someone has an emergency!

Very often, these emergency calls arise from accidents to animals. Last month, I mentioned that I would like to discuss fractures. Next to severe cuts from barbed wire, fractures are the most common serious injuries from accidents.

Dramatic

Remarks about a dramatic fracture-repair on a popular racehorse made me realize that many people still believe that a horse or cow with a broken leg must be destroyed. This horse had a serious fracture common to the runner, which, had he been a gelding, would have been cause to destroy him.

However, the breeding potential of an exceptional stallion or mare indicates exceptional effort to save the animal. In this case, veterinarians expert in surgical repair of fractures were brought in. At this writing, the results are not known, but the attempt was made.

The severity of fractures varies, as well as the value of animals. A horse or cow can have a fracture so slight that it is confused with lameness caused by a bruise. On the other hand, there is the fracture so severe that the animal cannot even stand on the three good legs.

As for the animals, they may vary all the way from horses or cattle of extreme breeding value to the veal calf ready for slaughter or the old gelding ready for retirement.

First Aid

First aid immediately after the fracture is most important if the animal is to be saved. If you suspect a fracture, do not try to move the animal until you immobilize and protect the affected limb.

Rolled-up newspaper supported with bandage or tape can be used as a temporary splint in some cases. Stiff cardboard, plywood, or the combination can also be used. You will be surprised what your imagination will do to help you in an emergency!

Be careful not to cut off circulation, but don't let things be too loose either. If the animal is down, leave him down; in fact, keep him down until he is seen by a veterinarian.

Protection from other animals, hot sun or cold is important. If a tranquilizer is available, use it, but remember that careless use of needles can transmit equine infectious anemia.

On a severe and obvious fracture, your veterinarian may put a temporary cast on immediately. The damage to tendons, nerves and blood

vessels by a broken bone can, in a few minutes, destroy any possibility of saving the animal.

Once a temporary cast is in place, there is no rush. Most veterinarians today have some of the new light, quick-setting type of plaster of paris bandages on hand . . . and can make a satisfactory cast in just a few minutes. I understand that inflatable temporary casts are also used. These I have not seen.

Of course, your veterinarian may take one look and know a fracture case is hopeless, or you may know yourself that the value of the animal . . . such as in the case of a steer ready for slaughter . . . would make fracture-repair impractical.

If there is a question, however, the temporary cast gives time to think, time to x-ray and get things together for a more permanent cast. The temporary cast also gives your veterinarian time to secure the help of another veterinarian if he feels he needs it.

Good Chance

In a severe fracture below the hock or knee of a young cow or horse, chances of recovery are far greater than was true a few years ago. Recovery of a fracture above the knee or hock is more questionable, but still possible, due to the use of new casting material.

Plaster of paris bandages with resins added that dry in less than ten minutes are available. There are aluminum-alloy rods that can be used in place of what used to be called "walking irons." These same rods can be used to make light, strong Thomas splints for fractures above the knee or hock. In case of the lower fracture, the rod is bent to fit like a stirrup under the foot of the horse or cow so that weight is borne above the fracture.

A few years ago, one of the worst things about plaster casts was removing them. With vibrating-saw cast-cutters now available, a cast can be removed and replaced as often as needed. These saws look like tiny circular saws, but the blade vibrates instead of spins. It cuts hard material such as cast or hoof, but will not hurt soft tissue such as skin.

It hardly needs to be said that antibiotics available today make it possible to treat even compound fractures that would have been impossible prior to their use.

Antibiotics

With severe fractures requiring internal fixation . . . such as stainless-steel pins or plating . . . it may take a team of veterinarians to do the surgery. However, most fractures do not need this sophisticated treatment, and your local veterinarian can do the job.

Fracture repair in large animals has always interested most veterinarians, perhaps because one of the most difficult things to do is tell an

(Continued on page 7)

American Agriculturist, June, 1971

LIVESTOCK



Angus Judging — A new judging system for Angus breeding classes is set for trial at major Angus shows in 1972. The new system will utilize three experts...two judges and a referee. A drawing preceding each class will determine which of the three will be judges or referee.

While "committee" judging is not new...horse shows have been using it successfully for years...it is an innovation in beef cattle shows. The proposed new system differs from regular committee judging in that: 1) judges work independently at all times, 2) final placement is reached by forming a composite of the individual placements of each judge, and 3) when conflicts occur, final placement is reached by referring to the referee's placement.

Paints — The history, basis and colorful characteristics of one of America's fastest-growing breeds are contained in a new four-color brochure entitled, "Paints, the Horse With Individuality." Get your copy from the American Paint Horse Association, P. O. Box 12487, Fort Worth, Texas 76116. When you write, ask also for a complimentary copy of the Paint Horse Atlas, a reference guide to owners and breeders of Paint Horses throughout the United States.

Registered Appendix—A new registry program for upgrading commercial and crossbred Shorthorns and Polled Shorthorns has been established by the American Shorthorn Association. This is an Appendix Registry... separate from the organization's current Purebred Registry... to further identify outstanding commercial and crossbred cattle of the breed, and provide further incentives toward increasing the concentration of Shorthorn blood in the commercial industry.

To be eligible for the new Appendix Registry, either the sire or the dam of the entries must be a registered Shorthorn or a Polled Shorthorn. A Certified Certificate will be issued on 15/16 blooded bulls and on 7/8 blooded females. Registration fees will be the same as those

Mettler

(Continued from page 6)

owner, "I can't do a thing except put him out of his misery." Soon after learning to use the new materials about four years ago, I had the satisfaction of seeing a yearling heifer showing and winning in 4-H classes all over southern New England seven months after breaking a front leg. True, when a case does not respond, it is disappointing, but at least I know I have tried.

Seeing your best two-year-old colt or heifer with a dangling leg gives you a sickening feeling, but if you try, give first aid and call your veterinarian, you may have the thrill of seeing this same animal walk first on a cast and later soundly on all four. If it doesn't work, at least you know you have tried.

that currently prevail for entry into the Association herd book.

Beef Picture — A new 16-mm color and sound film entitled "Your Best Beef Buy" has been released by the American Angus Association and is available to all interested groups.

The 11½-minute motion picture tells why it is important to buy beef, cut the proper thickness, from a market that specializes in properly aged, high-quality beef. It shows the difference in high and low quality beef, and how to broil a steak properly on an outdoor grill or in your broiler. Shoppers are cautioned to avoid misleading ads that promise choice or prime-

quality beef instead of USDA Choice or Prime. The USDA beef grades are also briefly explained.

For full information about "Your Best Beef Buy," write: Public Relations Department, American Angus Association, 3201 Frederick Boulevard, St. Joseph, Missouri 64501.

Additive — A dairy feed additive normally used as a growth stimulant has been found to improve the quality of meat from dairy-beef animals.

Dairy scientists at Michigan State University report that when melengestrol acetate (MGA), a synthetic female hor-

mone, was fed to 100 test heifers, it not only boosted the rate of growth and weight increase, but resulted in more tender meat than that of animals not fed MGA. A marked increase in the amount of lean meat, with a decrease in the amount of fat, was also noted.

Evidence from this experiment, the first large study of MGA for dairy-beef animals, is important because of a recent trend in meat production. There is increased cross-breeding of Holsteins with Herefords for better meat quality in the offspring. The greater size and feed efficiency of Holsteins is reflected in the quality of meat from the cross-bred animal.

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FT-2

What's NEW in the FIELD

by W. D. Pardee*

FORAGE MANAGEMENT

SUCCESSFUL alfalfa production is a tight balance between a three-way conflict of interest. First, there's

*New York State College of Agriculture at Cornell University

the plant, striving to produce seed and to build up root reserves for winter survival. Then there's the animal that does its best on tender, immature forage, that is in digestibility and protein. Third, there's the

man in the picture, hoping to put both together for top returns. And then there's the weather, which usually chooses not to cooperate with any of the three.

The balancing of these opposing forces leads us into forage management, a worthy science in itself. Researchers the world around have studied this from all sides for years. We've learned a lot — but still have lots to learn.

We'll run through some proven principles and what they mean to you in planning your forage harvest. Then we'll point out some areas where doubts still exist since it'll help you to know these too.

All forage plants, alfalfa included, start with a flush of growth... producing tender, succulent material,

high in protein and digestible energy, and low in fiber. Usually this stuff is highly palatable to livestock.

But as plants mature, they change. Their goal is to produce seed, so sugars and proteins are diverted into flowering and seed formation. They also strengthen cell walls and fibers with lignin to produce stems capable of holding up seed heads or pods. Such woody fibers are fine in maples and oaks, but darn poor constituents in alfalfa or other forages meant for livestock!

Biggest drop is in digestibility, which correlates roughly with TDN (total digestible nutrients). Research at Cornell and many other stations has shown this dropping in forage crops at about ½ percent per day during May and June. This means that hay or haylage cut June 20 will be 10 percent less digestible than hay cut June 1. This may mean the difference between 65 percent digestible feed and 55 percent.

This loss must be made up from other feeds and will probably come out of your grain bill. There are other ways of figuring, but these all relate to percent digestibility and fall approximately the same way. They all show that the older your forage, the tougher it is to digest.

Digestion Drop

Mature forage...with its high fiber content...remains in the gut of the animal longer before digestion is completed and the waste material passes on. This means that cattle are full and feel full longer after eating late-cut forage than would be the case with earlier-cut material. As a result, they eat less often, and so take in less feed. This reduced consumption in turn reduces capacity for animal production.

Protein percentage falls similarly...with some research suggesting you'll lose ⅓ percent per day. Here's another factor you'll likely be adding to your feed bill!

Palatability also falls in older forage, probably because of the additional lignin and general toughness. Net result is that cattle eat less and get less out of late-cut forage than they do early-cut material.

When Cut?

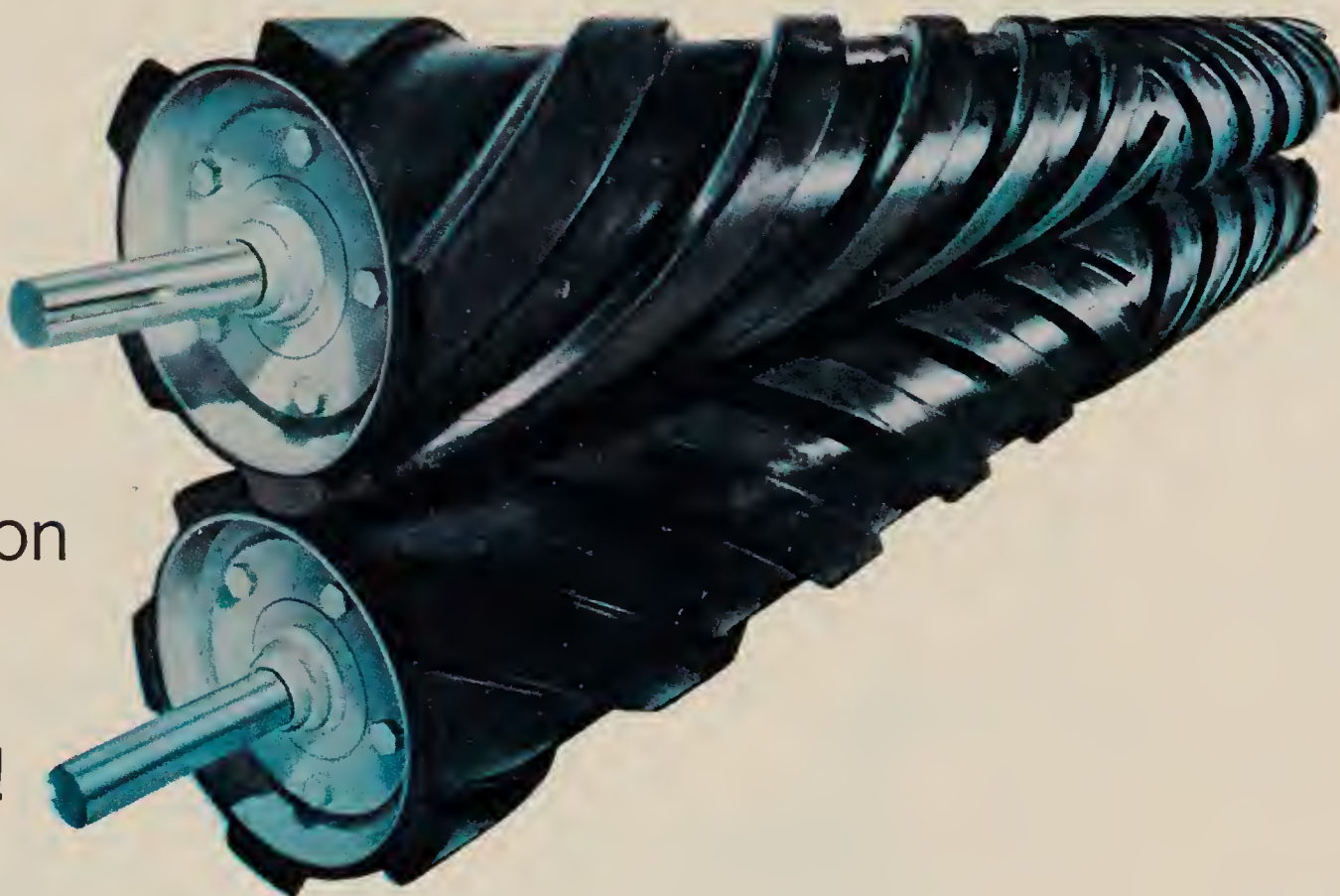
Most research shows first-cut alfalfa can be safely taken off in bud stage or at first flower. From then on, summer heat plays a role in how fast alfalfa recovers and is ready for further harvest.

Most Cornell trials show 42 days needed between cuts to avoid damage to stands. R. P. Murphy, Cornell forage researcher, feels this interval should be expanded to 46-50 days between cuts in late summer and early fall, when cooler temperatures slow growth.

Further south, with more heat,

How to make hay without getting all wrapped up in it.

The answer: Intermeshing rubber rolls that grip hay firmly, condition it thoroughly. Only on New Holland!



If it weren't for these rolls, a Haybine® mower-conditioner would wrap and plug like other mower-conditioners. What makes these rolls so much better? First of all, both are rubber, so you don't have the sticking problem you have when one roll is made of steel.

Then notice the exclusive chevron design of the treads. These treads intermesh as they spin, which gives the rolls a good, firm grip on the crop (to keep it moving) and lets them do a thorough conditioning job (for faster drying).

One more thing. These are *high-speed* rolls, which is another big factor in turning out the kind of fluffy, airy windrows that cure quickly.

And these unique rolls are "packaged" in a rock-solid unit that's built to outlast any other mower-conditioner in the field. That's why more

farmers buy a Haybine than any other mower-conditioner.

There are three models: a self-propelled and a pull-type that are 9'3" wide, and a smaller pull-type with a 7'3" cutting width.

Smart farmers will be seeing their New Holland dealer before they get all wrapped up in this year's hay!

New Holland Division of Sperry Rand Corporation.



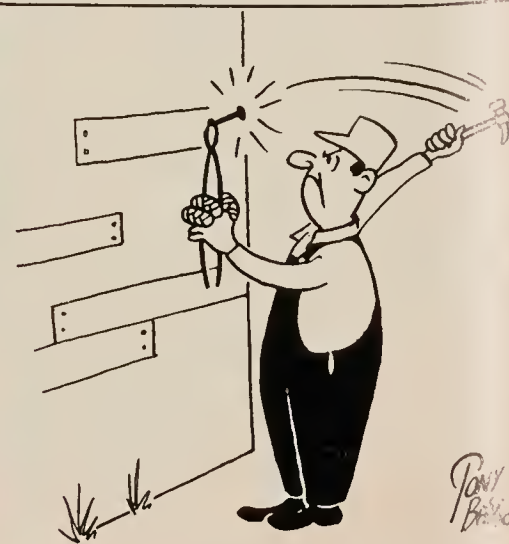
Remember, if it isn't New Holland, it isn't a Haybine.



SPERRY RAND

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Practical in design · dependable in action



American Agriculturist, June, 1971

farmers have more leeway, with 35 days a common interval between cuts in New Jersey, southern Pennsylvania and Maryland.

But why not cut alfalfa every 30 days and get really top-quality stuff? Big reason is food reserves. Let's take alfalfa plants. New alfalfa growth draws on root reserves until it is about 6 inches tall. After this, it begins to put sugars back into the roots, storing energy for the next growth or for over-wintering.

Alfalfa cut too frequently does not have time to recharge this root storage and gradually reserves are drawn down to the point where the plant cannot regenerate. It's like a bank account where deposits don't equal withdrawals. Eventually, it runs out.

First-Year Seeding

The switch to seeding without a companion crop, using herbicides to control weeds, has focused interest on harvest management in first-year seedings. Bob Seane, Cornell forage specialist, has carried on extensive tests to measure the effect of various first-year cutting systems on yields in subsequent years. His results show that first-year seedings, grown alone, can resist a lot of harvest abuse. Cutting them 2 or 3 times a year, even with cuts in the so-called "critical" period (4-6 weeks before frost in the fall), he found no damage to yields the following year.

The first-year stands weren't affected by cutting management in Seane's trials, quality was. Protein content ran 21 percent on July 8, 16 percent on July 22, and 14 percent on August 5. Digestibility was dropping also during these periods.

Best feed quality came from harvest in early to mid-July, followed by a cutting around the last week in August. This could be followed by a further cutting in late October. Harvests did not hurt future stands so long as plants had 6-7 weeks

between cuttings for growth.

Much research on established stands backs up the recommendation to avoid cutting alfalfa during the so-called "critical" period, 4 to 6 weeks before killing frost. However, during the past several years, this has featured some of the best hay-making weather during the season, and many northeastern farmers have cut considerable tonnage of hay and haylage during this time. So the question keeps popping up.

Recent Michigan data suggest that this may not be as harmful to stands as we had thought in the past. Also, Bob Seane at Cornell finds less evidence of stand loss from such cuttings than we used to see.

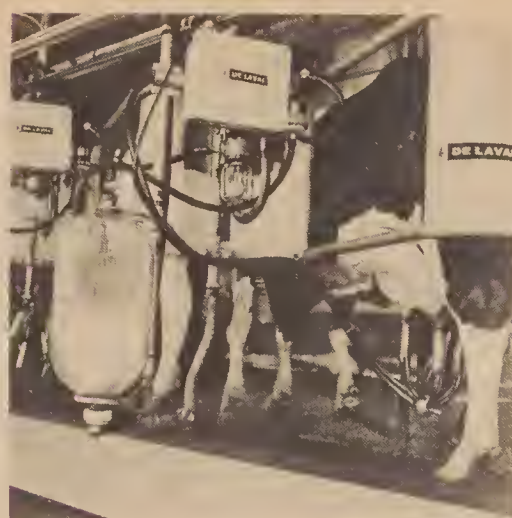
He notes that new and vigorous varieties, grown under high fertility, may persist better under fall harvest than older strains at the lower fertility levels of the past. But... **be sure the stand has 6-7 weeks to recover from its previous cutting!** We plan to continue research in this area, since we'd like more flexibility in fall management to capture top quality without damaging stands.

Your experience (and ours) will vary from year to year... depending on snow cover, ice sheeting, and winter temperatures. Some growth on the stand may be desirable to hold snow, yet provide passages for air to reach the crown through ice sheets.

The science of forage management can get complex, depending on how deep we want to go. Best general suggestion probably is to plan on making your first cutting as early as you can, then maintaining 42 days between cuts in New York or northern New England, at least 35 days further south. And unless you're very short on feed, leave some standing material on the field over winter. Until we've clarified the issue, you may wish to go with most of the research which points to avoiding harvest 4-6 weeks before freeze-up.



**With Our
ADVERTISERS**



The De Laval Separator Company has developed a new milking machine that is "controlled" by the cow.

It operates on two levels... similar to the low and a high gear on an automobile. When the unit is placed on the cow, the milker starts in low gear, which uses low vacuum (10 inches), and a slow pulsation rate (30 per minute). When the cow becomes ready and milk flow starts, a sensing device shifts the milker into high gear with a full 15 inches of vacuum, and 60 pulsations per minute.

When milk flow tapers off, Model 200 senses the reduced flow and, after a short delay to strip last milk, it switches back to low. Thus, the machine prevents milking a dry teat, and the accompanying potential for udder injury.

For further information on the Model 200 milker, write: Dept. AA, The De Laval Separator Company, Poughkeepsie, New York 12602.

A mechanized manure removal system designed to enable dairy farmers to keep single or multiple-alley free-stall barns clean continuously, with no labor input, has been introduced by Badger Northland. The system features a reversible-drive transmission and chain which pulls special alley scraper paddles the full length of the barn, then reverses to pull the paddles in the opposite direction.

For full information and typical layout plans, write: Department AA, Badger Northland Inc., Kaukauna, Wisconsin 54130. Or see your nearby Badger dealer.



Undercover unloading to minimize dust pollution in the immediate area is a feature of the new satellite feed mill built at Watertown, New York by the H. K. Webster Company of Lawrence, Massachusetts, manufacturer of Blue Seal Feeds. The plant serves all or part of six upstate counties; entire output is bulk feed in pelleted form.

Area manager for the new facility is William Rogers of Ogdensburg. Plant operations manager is Noel Moran.

Eastern Artificial Insemination Cooperative, headquartered at Ithaca, New York, is switching to straw-packaged sperm for artificial insemination procedures. Slender five-inch plastic straws replace the glass ampules formerly used for semen storage. Advantages include: higher conception rates, less semen loss through handling techniques, better sperm survival, less storage space required, more convenient for technicians, and makes for more efficient and flexible distribution methods.

A new Model 618 grain and forage blower... designed for today's wide range of tractor pto horsepower to accommodate high, big-tonnage silos... has been introduced by Ford Motor Company's Tractor and Implement Operations. The 618's 34x40-inch hopper is only 20 inches high, permitting easy positioning of even the lowest self-unloading forage wagon.

Other functional 618 features include adjustable hitch and discharge angle, heavy-duty drive-line, and a water adaptor for low-moisture silage.



This artist's conception of a good-doing, muscular, high-quality Angus steer has been released by the American Angus Association. The animal's size and stretch indicate he should gain fast and efficiently in the feedlot. As an ideal beef steer, he should also have the ability to grade USDA Choice at around 1,000 pounds or be able to continue to gain efficiently to 1,200 pounds or more and grade USDA high Choice or Prime without excess fat cover.

Detailed information about how size, shape and muscling affect feedlot profit of a beef animal will be announced at the American Beef Cattle Symposium on June 22-23-24 in Madison, Wisconsin. A program highlight will be the results of three years of feeding and carcass tests of over 400 steers.

The program is open to everyone interested in beef cattle. It is being co-sponsored by the American National Cattlemen's Association and the American Angus Association.



VEGETABLE INNOVATIONS

by Amos Kirby
New Jersey Editor

NEW JERSEY vegetable growers are not growing any sugar beets in 1971, but they are trying out a number of new ideas. They are buying asparagus and tomato harvesters.

When Del Monte stepped out of the asparagus-processing operation, this threw approximately 3,000 acres out of a market. To fill the gap, a Swedesboro broker and a Vineland processor teamed up to absorb the acreage that was without a home. Their method of processing was to buy a machine-harvested product, and freeze it for the retail trade.

This involved bringing in 50 Porterway harvesters, a machine that has done exceptionally fine work in Delaware.

The marketing of all-green and machine-harvested spears involves many problems to which there will be no answers until the season is over and the money counted.

Increase Yields

In an effort to increase yields from asparagus, a new system of planting is being used...based on the Draper-King Cole operation at Milton, Delaware.

Those who are establishing new beds are placing the roots and crowns in a double row with the plants less than 12 inches apart in both directions. This new system more than triples the number of plants per

acre, and...when in full production...should double yields.

Another innovation is the direct-seeding of asparagus and tomato seeds. Commercial plantings of tomatoes by direct seeding in 1970 proved highly successful, and this year finds a substantial acreage being so planted, with special seeding equipment developed by David Fogg of Salem.

Direct seeding...which can be made to fit the demands of machine harvesting...is much less expensive than buying and setting plants. By carefully timing the seedings, different fields will mature at different periods of time.

New Jersey tomato growers have purchased 25 mechanical harvesters; they will be in operation in August. Tests conducted by growers, in cooperation with the Campbell Soup Company and other processors, have proven that mechanical harvesting can be profitable in the East.

Asparagus Seeding

The biggest change in seeding practices involves the growing of asparagus. Machines have been perfected for direct seeding of asparagus in a double row. This is done in August.

Tests in New Jersey and Delaware indicate that the August seeding develops a satisfactory root, reduces

cost of weed control, and eliminates the expense of setting the following spring.

Labor Costs

If one is looking for an answer for the magnitude of all of these changes in one season, it boils down to one word... "LABOR."

An analysis of the labor situation reveals high wages, more strict regulations concerning seasonal workers, indifference on the part of the worker, farm visitation being forced by unauthorized groups of individuals, and...to top it all...no change in the prices that growers are being offered by processors.

One large asparagus grower bought three harvesters, investing close to \$25,000 in machines just to get rid of some of the aggravations of dealing with workers, and with the demands of social agencies for improved working conditions.

BONDED DEALERS

There is ample evidence that some growers have sold crops to unlicensed and unbonded dealers. Under New Jersey Department of Agriculture regulations, anyone buying farm crops must be bonded or pay cash. Most buyers are bonded, some are not.

If the buyer pays cash at the farm, no need to be concerned. If it is a credit sale, whether with checks or promises, it does no harm to learn if there is sufficient bond with the State Department of Agriculture.

6. Pollution

While the battle cry against pollution is now being directed mainly against industrial plants, better be prepared, farms may be next to be attacked.

Odors from animal wastes may stir up a lot of unpleasant situations in some areas. One authority is suggesting that agricultural wastes be taxed at 50 cents per ton...not to eliminate air pollution, but to provide funds for maintaining public expenditures.

FRUIT SPRAY

The New Jersey Agricultural College has issued one of the most complete publications on orchard sprays. It not only lists the diseases and pests, but recommends appropriate pesticides. It also devotes space to orchard management, pesticide breakdown information, and how to dispose of unused materials at the end of the season.

LABOR CAMP

Another housing inspector moves in on New Jersey farms. In addition to the almost weekly inspections by the New Jersey Migrant Labor Department, the Puerto Rican government is now sending its inspectors to any farm that has one form or another of a labor contract with Puerto Rico.

The Puerto Rican inspector may demand additional facilities...even after the camp has been approved by New Jersey officials.

The question confronting growers involves which inspector has the final say!

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FORD TRACTOR



A movement that can bring disastrous and far-reaching change to American agriculture and to the American people is rapidly being propagandized to the American farmer.

The call goes out from numerous farm leaders, editors and political figures: "Farmers of America, unite, and your dreams of instant and long-lasting prosperity will be fulfilled and with less effort and responsibility!" These leaders say that all the farmers have to do to bring this about is to control farm production. This means giving up our freedom to manage individually in exchange for collective management of agriculture.

Power Seekers

It seems incredible that the American farmer, the most productive and prosperous the world has ever known, should fall victim to this age-old call from the power seekers among us. Up to now, farm organizations have been voluntary . . . and their leaders, although at times ill-advised, have championed the individual freedom of the American farmer. We can expect many changes if "compulsory" replaces "voluntary" in our farm organizations.

New Breed

We will have a very different breed of farm leaders, patterned after some of our notorious labor leaders, instead of after a Charles Shuman or a Herschel Newsom. These new leaders will demand obedience, and will urge the passage of laws enabling the police power of government to be used to enforce unpopular regulations. The violence that accompanied union establishment of monopoly in labor will become widespread in America's farmlands.

We seem in America to be completely blinded by envy and greed, blinded to the extent that we deny the eternal truth of the Ten Commandments and the wisdom of the Golden Rule. We are on the verge of sacrificing our individual liberty for the demagogue's promise of what common sense tells us is impossible.

They say we can increase our freedom by taking freedom away from anyone who happens to be in a minority. They say we can increase our prosperity by reducing our production. The demagogues say that the law of supply and demand does not work, and that labor is not a commodity, yet they spend **their** income freely choosing the best buy in the items they need and desire.

No Help

As with most coercive actions, this one would bring about the opposite from the stated objectives. Instead of helping the family farm and the individual farmer, it would bring about his disappearance from the American agricultural scene.

In most countries of the world, the right to individual freedom is at the beck and call of government. Our forefathers believed that freedom was a God-given right to every

(Continued on next page)

"Uni-System just (Especially at harvest time.)



Uni-Picker. The only machine that will pick and husk more than two rows at a time. Self-propelled! Its capacity is unsurpassed.



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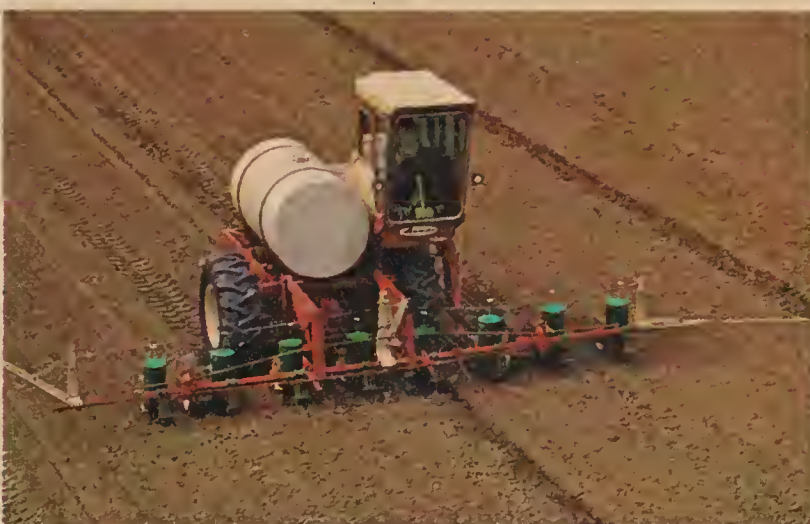
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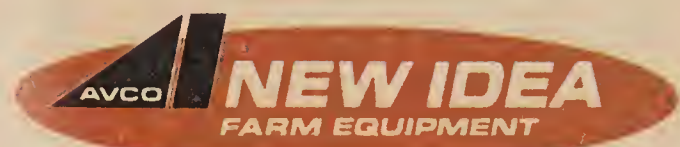
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man and could not be taken by government . . . and certainly not by organizations with the power to govern.

Those connected with agriculture can see that the commodities subjected to interference and collectivism for the longest time have lost substantial proportions of their domestic markets, in spite of tariff protection and production quotas. The result is the same in non-agricultural commodities.

In spite of the regulations in some areas of agriculture, American farmers have had, to a large degree, a freedom of choice as to entry and exit, production, and commodity. Under these conditions, they have made tremendous increases in production and investment per man. Everyone benefits!

This is a much different situation from that created by our monopolistic unions in other businesses. America can as surely lose her freedom of choice in the marketplace through the efforts of unionistic farmers as through the illegal secondary boycott of Cesar Chavez.

Disaster

So far, I have concentrated on the effects of collectivism on the farmer, which are the loss of individual freedom and the disappearance of the family farm. The effects on the American people could be even more disastrous.

By its very nature, the "demand" mentality running rampant in America today has to involve the increasing use of force. Traditionally, Americans have been paid according to their contributions to society in peaceful exchanges in the market. In this system, which prevailed until the labor mentality began to erode it, a person's income was limited by his energy, ambition, and competition, and by the discipline of producing something which someone else desired in willing exchange.

With the coming of the "wages-by-demand" mentality, aided by trade unionism and the right to strike, the discipline of producing for our fellow citizens began to disappear. In its place came a more-pay-for-less-work mentality.

Takeover

If agriculture could be organized along the line of the United Auto Workers, the American people could expect to suffer periodic loss of the means of life . . . food . . . while power-hungry leaders pressed increasingly-excessive demands on the American public. The eventual result would be government take-over of farm management. This action is now threatened in the rail and building-trades industries, two of the earliest and strongest collectives, whose power becomes increasingly abusive to the welfare of all Americans.

If the situation I have described does not come to pass, it will be because individual farmers are willing to make sacrifices in defense of their freedom.

It will involve individual effort against every law that involves compulsion, and it will involve letting our farm leaders know that we value our individual freedom . . . which in the end is the **only** freedom.—Gerard Bourgeois, dairy farmer, Morris, New York.

BASE PLAN REVIEW

HOLLIS Hatfield, who hails from the Northeast, is now assistant director of the Research Division of the American Farm Bureau Federation. Here are excerpts from a speech he gave recently about the Class I base plan in the State of Washington:

The Class I base plan under the Puget Sound Federal Milk Marketing Order went into effect on September 1, 1967. We have, therefore, a market with three years of experience to observe. To date, Puget

Sound is the only federal order market with a Class I base plan authorized by the Food and Agriculture Act of 1965.

A Class I base plan apportions fluid milk sales among the dairymen shipping to a particular market based upon each dairyman's past deliveries to that market.

In any review of this base plan, it should be emphasized that the Puget Sound area is unique, as compared to most federal order markets,

because the movement of milk is deterred by Canada on the north, mountains on the east, and an ocean on the west.

It probably is fair to state that the Class I base plan, by encouraging some producers (who sold their base) to leave the dairying business sooner than they otherwise would, has somewhat accelerated the already-existing trend toward larger and fewer farm units in the Puget Sound Marketing Area (PSMA).

Justification

Three reasons frequently advanced for a Class I base plan are:

1. To reduce surplus milk production.
2. To eliminate a basic defect of the blend pricing system.
3. To permit a dairyman to pro-

duce in line with his market's fluid requirements.

Let's take a brief look at these reasons, using as our guide market statistics for the three-year period the Class I base plan has been operating in the PSMA.

The amount of milk delivered by producers the first year of the base plan was 30 million pounds **below** deliveries for the comparable period the year prior to the plan... a 2.3 percent decline. Producer deliveries totaled 1,265 million pounds during the second year of the base plan, and moved up 1,344 million pounds in the third year... seven percent **above** the volume of milk delivered during the first year of the base plan. Plant changes in and out of the Order had only a slight effect on these figures.

In the year preceding the base plan (September, 1966 to August, 1967), the Class I utilization in the Puget Sound market averaged 47.4 percent of producer deliveries.

During the plan's first year, the Class I utilization averaged 50.6 percent of producer deliveries... up by 3.2 percentage points above the comparable period in 1966-67. The Class I utilization rose to 51.9 percent in the second year of the base plan, but dropped to 49 percent in the third year.

Looking at producer deliveries in the PSMA for the first eight months of 1970, the increase of 7.9 percent was pronounced. The increase for the U. S. as a whole during the same period was less than one-half of one percent.

Producer deliveries in the PSMA during the first eight months of 1970 totaled 81 million pounds **above** those for the comparable period in the first year of the base plan.

Division

Dividing producer deliveries into their component parts, base and excess, base deliveries for the first eight months of 1970 were 2.5 percent **below** those for the same period in 1969; excess deliveries **rose** 24.5 percent. Producers with no base, approximately one-fourth of the dairymen, accounted for over 25 percent of the total producer deliveries to the Puget Sound market during the first eight months of 1970.

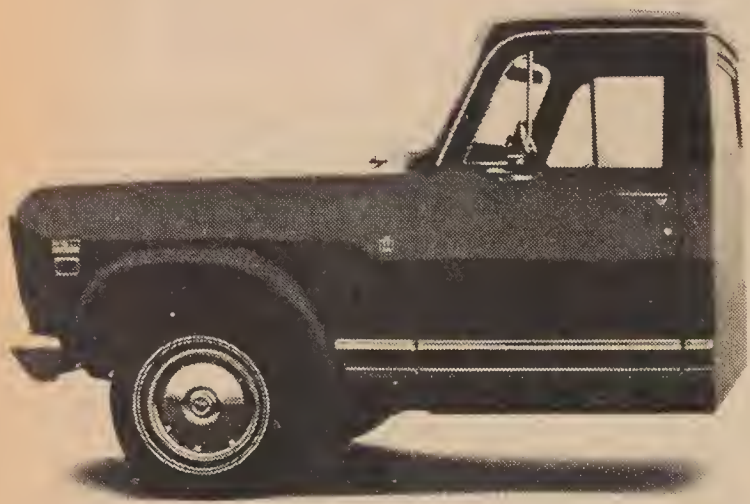
The Class I base plan objective to reduce surplus milk production is based on the assumption that it is unprofitable for most dairymen in fluid markets to produce milk for manufacturing purposes.

Regardless of the so-called new-producer provision of the Puget Sound plan, the fact remains that the "excess" price is apparently high enough to induce production for manufacturing purposes. With the excess price being largely determined by the price-support level, the support level not only is high enough to induce production of excess milk, or overbase milk, but has undermined the base plan.

To eliminate a basic defect of the blend-pricing system is a second reason often stated for a Class I base plan.

The Puget Sound Class I base plan, with its two-price structure, **does** eliminate the so-called subsidized production of surplus milk, (Continued on next page)

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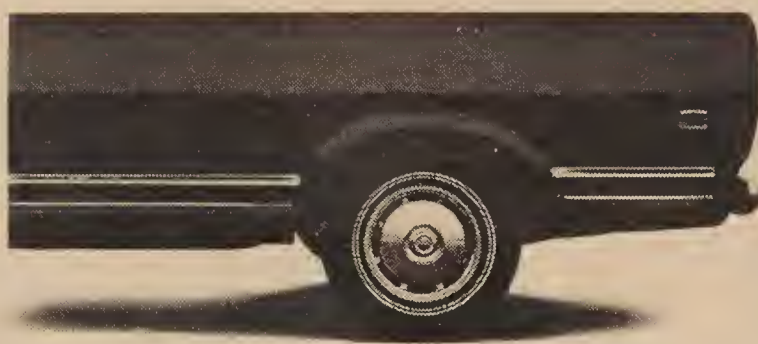
So you and your load will ride with a little more stability and a little more safety.

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front and the weight in the back is the transmission. Since it's going to be doing a truck's job—make sure it's a truck transmission. We have seven available—two 3-speeds, two 4-speeds, a 5-speed heavy duty, a 5-speed with overdrive and a 3-speed automatic.

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And when you're through checking on all the things that will take care of that load in the back, check on the things that will take care of you.

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They're the things you'll find available with an International.

Finally, when you've done all the looking, you'll see a big difference between the International and anything else with a bed in the back.

Because the International is built around the most important part first.

The last half.

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but it does not entirely prevent the increased production of other dairymen from lowering the base price paid a producer . . . because the base price is a blend of Class I and Class III (or excess) price.

To permit a dairyman to produce

Dates to Remember

June 1-5 - Dairy Festival, Boston Commons, Boston, Mass.

June 4-6 - Delmarva Chicken Festival and National Chicken Cooking Contest, Ocean City, Md.

June 7-18 - Sheep Industry Nationwide Referendum on continuation of lamb and wool promotion.

June 8 - 63rd Annual Convention American Feed Manufacturers Association, Conrad Hilton Hotel, Chicago, Ill.

June 8-9 - 29th Annual Dairy Fieldmen's Conference, Pennsylvania State University, University Park, Pa.

June 9 - Eastern Milk Producers Cooperative Association Annual Meeting, Hotel Syracuse, Syracuse, N.Y.

June 12 - Wayne County Craft Fair, Pultneyville, N.Y.

June 14 - Flag Day

June 15-17 - 103rd Annual Meeting American Jersey Cattle Club, Reno, Nev.

June 18 - Feeder Pig Sale, Caledonia, N.Y.

June 20-23 - American Dairy Science Association Meeting, Michigan State University, East Lansing, Mich.

June 20-23 - NEPPCO Egg Quality School, Rutgers University, New Brunswick, N.J.

June 22-24 - American Beef Cattle Symposium, University of Wisconsin, Madison, Wisc.

June 23-24 - Annual State 4-H Congress, Cornell University, Ithaca, N.Y.

June 28-Aug. 6 - Pleasure Horse Institute, University of Massachusetts, Amherst, Mass.

June 29-30 - Poultrymen's Get-Together, Morrison Hall, Cornell University, Ithaca, N.Y.

June 29-30 - 86th Annual Meeting Holstein-Friesian Association of America, Des Moines, Iowa

July 4 - Independence Day

July 7-11 - International Apple Institute, Lodge of the Four Seasons, Lake Ozark, Mo.

July 11 - New York Swine Improvement Cooperative Field Day, Fairgrounds, Waterloo, N.Y.

July 11 - New York State York-shire Club Meeting, Fairgrounds, Waterloo, N.Y.

July 16 - Feeder Pig Sale, Caledonia, N.Y.

July 16 - Vegetable Open House, Cornell University, Ithaca, N.Y.

July 16-17 - Craft Fair, sponsored by Northern New York Agricultural Historical Society, Agricultural Museum, Rt. 180, Stone Mills, N.Y.

July 17 - Vermont Angus Association Field Day, Onion River Angus, Inc., Williston, Vt.

July 22 - Northeastern Nurserymen's Field Day, Cobleskill Agr. & Tech. College, Cobleskill, N.Y.

in line with his market's fluid requirements is a third reason frequently given in support of a Class I base plan.

The Puget Sound plan does permit a dairyman to produce in line with his market's fluid requirements by the purchase of base.

Although the Puget Sound Plan has met the test of this third objective, on close examination a major question can be raised. That is, at what level should a market's fluid utilization be to assure a dairyman an adequate income? I raise this question because the Class I utilization in the Puget Sound Marketing Area for the first eight months of

1970 averaged 46 percent.

In summary, my remarks can be boiled down to two points:

1. A Class I base plan does not add to or subtract from the total money paid producers for a given quantity of milk. The money is merely divided among dairymen in a different manner.

A study by the market administrator for the Puget Sound Federal Milk Marketing Order shows that, for the period reviewed, 51 percent of the producers received a higher average price under the Class I base plan than they would have received on the basis of the uniform blend

price; 49 percent received a lower average price.

What the Class I base plan boils down to for the individual producer is a determination of which group he thinks he will be in!

2. With or without a Class I base plan, price will continue to play the predominant role in balancing a market's needs. Anyone who is serious about using a Class I base plan, authorized under a federal milk marketing order, to reduce surplus milk production must give thought to how the price for excess milk can be set at a level that discourages the production of such milk in large volumes.

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NEW YORK

Trumansburg Fair	July 6-10
Ontario County Fair, Canandaigua	July 12-17
Allegany County Fair, Angelica	July 13-18
Afton Fair	July 18-24
Yates County Fair, Penn Yan	July 18-25
Lewis County Fair, Lowville	July 19-24
Onondaga County Youth Fair, Syracuse	July 22-24
Broome County Fair, Whitney Point	July 25-31
Cattaraugus County Fair, Little Valley	July 25-31
Jefferson County Fair, Watertown	July 25-31
Chautauqua County Fair, Dunkirk	July 26-31
Saratoga County Fair, Ballston Spa	July 26-31
Seneca County Fair, Waterloo	July 26-31
Hemlock Lake Fair, Hemlock	July 27-31
Clinton County Fair, Plattsburgh	July 30-Aug. 4
Onondaga County Youth Horse Show, Syracuse	July 31-Aug. 1
Orange County Fair, Middletown	July 31-Aug. 7
Otsego County Fair, Morris	Aug. 1-7
Boonville-Oneida County Fair, Boonville	Aug. 2-7
Caledonia-Livingston County Fair, Caledonia	Aug. 3-7
Tompkins County Fair, Ithaca	Aug. 3-7
Greene County Youth Fair, Durham	Aug. 4-6
Orleans County Youth Fair, Albion	Aug. 4-7
Cayuga County Youth Fair, Auburn	Aug. 5-8
Schuyler County Youth Fair, Watkins Glen	Aug. 5-7
Rockland County Youth Fair, New City	Aug. 6-8
Chemung County Fair, Horseheads	Aug. 9-15
Chenango County Fair, Norwich	Aug. 9-14
Genesee County Fair, Batavia	Aug. 9-14
St. Lawrence County Fair, Gouverneur	Aug. 9-14
Gouverneur Fair	Aug. 9-14
Cortland County Youth Fair, Cortland	Aug. 9-14
Niagara County Youth Fair, Lockport	Aug. 9-12
Ulster County Fair, New Paltz	Aug. 13-15
Sullivan County Youth Fair, Grahamsville	Aug. 13-14
Warren County Youth Fair, Warrensburg	Aug. 13-15
Albany, Schenectady and Greene County Fair, Altamont	Aug. 16-21
City of Schenectady Fair, Altamont	Aug. 16-21
Delaware County Fair, Walton	Aug. 16-21
Monroe County Fair, Henrietta	Aug. 16-21
Oswego County Fair, Sandy Creek	Aug. 16-21
Tioga County Fair, Owego	Aug. 16-21
Essex County Fair, Westport	Aug. 17-21
Herkimer County Fair, Frankfort	Aug. 18-22
Franklin County Fair, Malone	Aug. 22-29
Wyoming County Fair, Pike	Aug. 22-28
Steuben County Fair, Bath	Aug. 23-29
Palmyra-Wayne County Fair, Palmyra	Aug. 23-28
Dutchess County Fair, Rhinebeck	Aug. 24-29
Schoharie County Fair, Cobleskill	Aug. 24-29

Washington County Fair, Greenwich	Aug. 24-28
Madison County Fair, Brookfield	Aug. 25-29
Montgomery County Fair, Fonda	Sept. 1-6
Columbia County Fair, Chatham	Sept. 2-6
Rensselaer County Fair, Schaghticoke	Sept. 2-7
Agricultural and Liberal Arts of Rensselaer County Fair, Schaghticoke	Sept. 2-7
Genesee Valley Breeders Fair, Avon	Sept. 4-5
Dundee Fair	Sept. 8-11
Queens, Nassau and Suffolk County Fair, Bethpage	Sept. 24-26
New York State Fair, Syracuse	Aug. 31-Sept. 6

PENNSYLVANIA

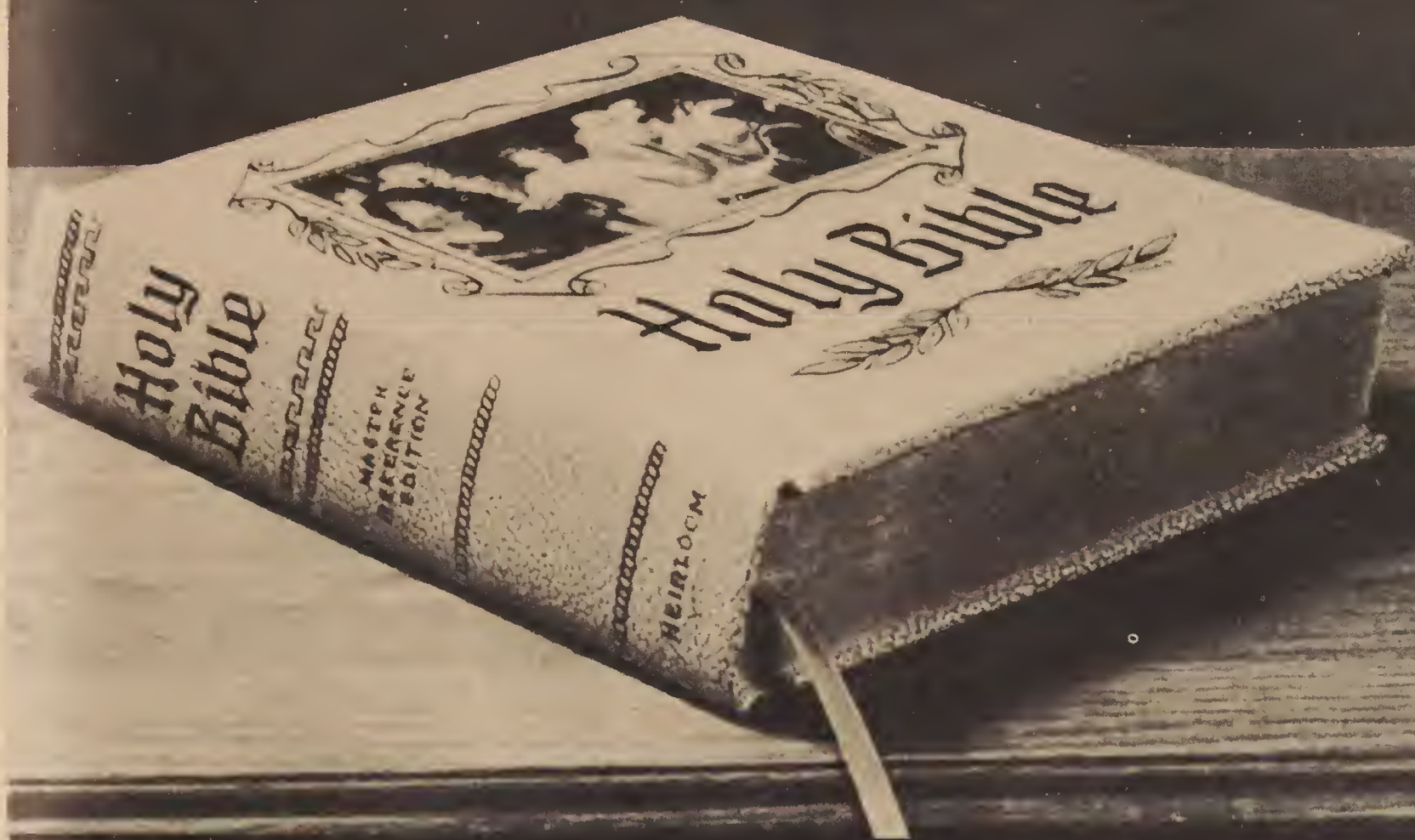
Gateway Fair, Dubois	June 14-19
Kimberton Community Fair	July 14-24
Jefferson County Town and County Fair, Sykesville	July 19-24
Lycoming County Fair, Hughesville	July 19-24
Plainfield Farmers Fair, Bangor	July 21-24
Reading Fair	July 23-Aug. 1
Clarion County Fair, Fairmount City	July 25-31
Troy Fair	July 26-31
Butler County Fair	July 26-31
Goshen Country Fair, West Chester	July 26-31
Shippensburg Community Fair	July 26-31
Clearfield County Fair	Aug. 2-7
Fayette County Fair, Uniontown	Aug. 2-7
McKean County Fair, Smethport	Aug. 2-7
Great Dallastown Fair	Aug. 2-7
Morrison Cove Dairy Show, Martinsburg	Aug. 3-6
Jacktown Fair, Wind Ridge	Aug. 3-7
Union County West End Fair, Laurelton	Aug. 3-7
Warren County Fair, Pittsfield	Aug. 3-7
Mercer County Pomona Grange Farm Show, Mercer	Aug. 4-7
Great Allentown Fair	Aug. 6-14
Great Bedford Fair	Aug. 9-14
Wayne County Fair, Honesdale	Aug. 9-15
Adams County Fair, Abbottstown	Aug. 10-14
Butler Farm Show	Aug. 10-14
Greene County Fair, Waynesburg	Aug. 10-14
Potter County Fair, Millport	Aug. 10-14
Wolf's Corners Fair, Tionesta	Aug. 11-14
New Stanton Farm and Home Fair	Aug. 11-14
Delaware Valley Fair, Milford	Aug. 12-14
Lebanon County Area Fair	Aug. 16-20
Dayton Fair	Aug. 16-21
Kutztown Fair	Aug. 16-21
Cameron County Fair, Emporium	Aug. 16-21
Carlisle Fair	Aug. 16-21
Middletown Community Fair	Aug. 16-21
Mountain Area Community Fair, Farmington	Aug. 16-21
Franklin County Fair, Marion	Aug. 16-21
Huntingdon County Fair	Aug. 16-21
Tioga County Agricultural Fair, Whitneyville	Aug. 16-21
Washington County Free Fair	Aug. 16-21
Lawrence County Farm Show, New Castle	Aug. 17-21
Montour-Delong Community Fair, Washingtonville	Aug. 17-21

(Continued on page 20)

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NFO MEMBER REPORTS

Another major breakthrough for NFO collective bargaining occurred in the Northeast when the Herkimer County NFO reload station at West Winfield, New York, began operations. Members' milk is brought to the station by farm pickup trucks, pumped into over-the-road tankers and then sent, under contract, to buyers in and around New York State.

There are other reload stations in the Northeast so, you may ask, what's so different about this one?

It will be used for collective bargaining, not "begging." It will provide an upward price pressure on the market so that all farmers in the Northeast will benefit, and as the earned money generates back into the economy, help to improve economic conditions.

By putting this block of milk on wheels, NFO can and will move it from a low-priced into a higher-priced area, thus causing an upward price pressure in the lower-priced area. When individual farmers sign contracts or reach agreements on the prices for their products, these prices become the ceiling. When NFO members block their production together and sign contracts, these prices become the floor.

The full effect of blocking this production together will be felt only when more and more farmers join the NFO and add their production to the block.

Up and Up

Every time the NFO makes a move, farm prices go up. It just can't be coincidence all the time! One example of this is the NFO hog victory.

Record supplies of hogs were predicted, with prices to dip below the \$15 level. When NFO announced at its national convention, December 18, 1970, that it was going to take steps to raise the price of hogs through its collective bargaining program, the "experts" said it was impossible.

The first part of the prediction proved to be true . . . a record supply of hogs did come to market. According to USDA figures, during January 1971, 1,612,000 more hogs were slaughtered than in January 1970 . . . a 27 percent increase. But the second part was false because hog prices went up \$5 to \$6 per cwt.

Lifted

How did this happen? NFO carried out a hog "lift." During the month of January, NFO moved massive volumes of production out of normal marketing patterns so buyers who normally get a supply in a given area would have to bid up to try to keep their supply from moving away

from them. The purpose was to raise the general price level and in the end get NFO farmers in a position to price their production.

Thus, even with a whopping increase in slaughter, NFO forced market prices up. Another "coincidence"? No, NFO bargaining power in action!

Other evidence of NFO's ability to push farm prices up is the recent hike in cotton prices. Cotton prices dropped \$10 per bale, a development that put cotton well below the new loan level. Then, in January, NFO members in the 13 cotton states put 10 percent of their production into a base-bargaining block.

This 10 percent cut deeply into the normal trade channels. This cotton was not available except through NFO-bargained supply contracts. Another 30 percent of the cotton, earmarked for the program after the harvest begins in July, will have its price level determined by farmers selling together and bargaining together.

Since January, NFO has moved cotton up from \$10 to \$15 a bale over market price at spot markets . . . and, out in Arizona, the result was a \$20 per bale price improvement over the local market.

It's no "coincidence," just NFO bargaining power in action!

Contracts

There is a need for all the food and fiber produced in the United States, and farmers can get an equitable price by just blocking this production together, putting a price tag on it like other businessmen do, and then selling it under contract.

Since NFO is a farmers' organiza-

tion, it covers all branches of agriculture from cotton to peanuts to pulpwood. Member-to-member sales of feed grains, seeds, etc., have saved hundreds of dollars and have also acted as a ceiling to force down prices at local outlets, thus benefiting all farmers.

Meat marketing arrangements have brought NFO members much higher returns and have also forced up prices at the local auctions, again benefiting all farmers.

Marketing information sent out by the national office keeps members alert to market conditions so they can hold their production off the market when prices are down . . . thus forcing prices up again.

Family Farm

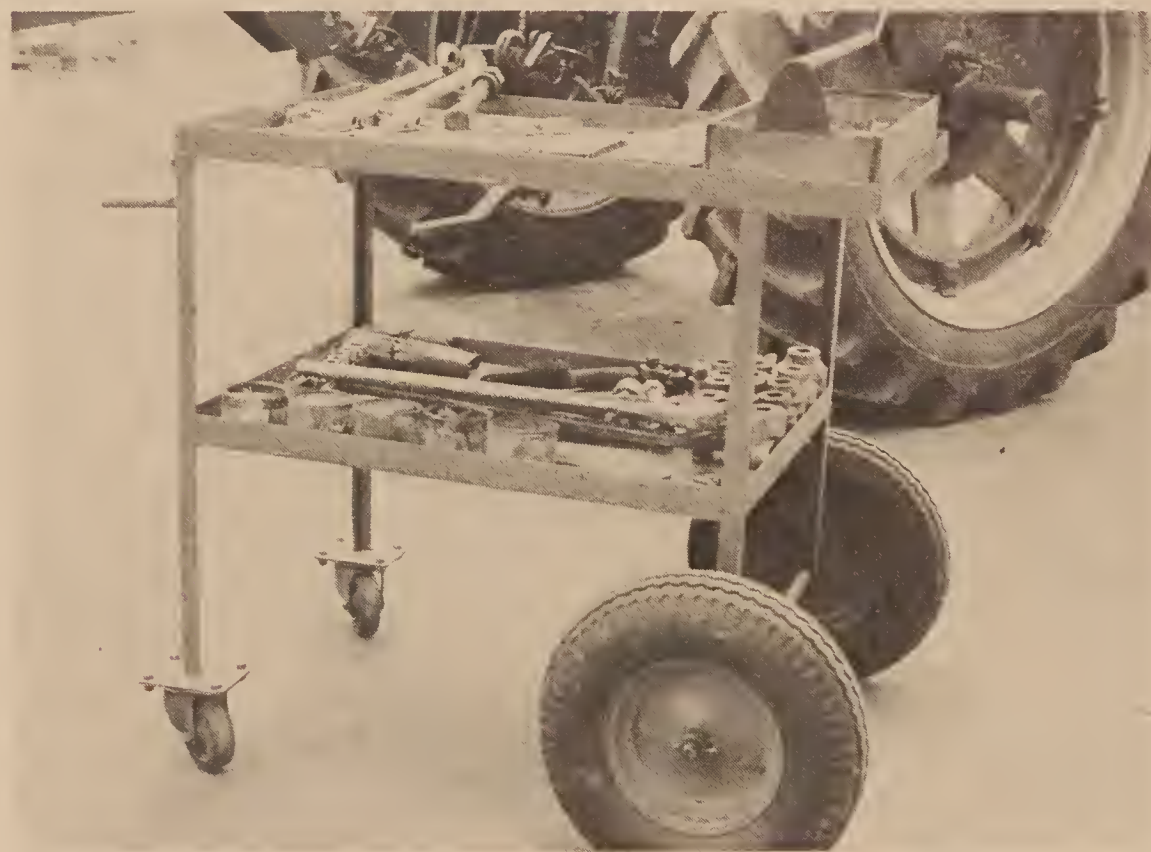
In every branch of agriculture, the goal of the NFO is to raise farm prices through collective bargaining so the family farmer will not be forced out of business.

Back in 1963, Extension specialists predicted an average blend milk price for New York State of \$4.25 for 1970. In 1960, milk averaged \$4.48. This would mean a drop of 23 cents per cwt., even though the predicted capital investment would increase \$60,000 and . . . with an average increase of 25 milking cows per farm . . . receipts to the top 10 percent of the farmers would rise only \$22,000.

By 1966, the blend price averaged \$4.79. In 1967, the year of the first nationwide NFO milk holding action, it was \$5.07; in 1968—\$5.43, in 1969—\$5.66 and 1970—\$5.89, \$1.64 above the prediction.

When the cooperatives petitioned for an 18-cent cut in the price of manufacturing milk last year, NFO members testified against it at the hearings and the cut was denied.

Even though the Class II support price has recently been raised 27 cents, and one of the co-ops here in the east wants to have the Class I price raised \$1, any price increases granted by the Secretary of Agriculture, any changes in parity ratios or economic formulas are not guaranteed prices. They can be removed very easily. There's also an eraser on the other end of that pencil!



This utility cart would be popular in any farm shop. Easily wheeled to any repair job, its double deck holds needed tools and supplies. It's made of welded scrap steel . . . wheels can be any that are handy. Photo: Grover Brinkman

The Herkimer County NFO reload station brings the NFO another step closer to its final goal . . . master contracts with prices that guarantee cost of production plus a reasonable profit. — *Jean Steciak, R.D.1, Little Falls, New York 13365.*

NO HONEYWAGON

I've lived on a farm all my life, and hauled manure on a wagon, but we certainly did not call it anything but a **manure wagon**.

I guess I will have to enlist the full "stinging" power of honey producers, packers, bee supply manufacturers and more . . . who I am sure feel the same as I do about having a fine food like honey used as a descriptive adjective for a foul-smelling vehicle for manure hauling.

We have 133 acres of land, including a few acres of apples, and about 350 hives of bees.

I suggest that you call this vehicle a milk wagon, sugar wagon or orange wagon. I guess you would soon have a lawsuit on your hands! — *Peter A. Riester, Auburn, New York.*

IMMORTAL

I feel that if any person will go on living it is Ed Eastman. He will live in the hearts of many, many people. His books, I am sure, will continue to find readers, because there is something about them that knows no period or fashion.

I knew from my correspondence with Ed that he and I shared a conviction that life goes on; that somewhere in the universe people who love God still will have the touch on them of the love which will not let us go. — *George L. Moore, Wellesley Hills, Massachusetts.*

LIKE A BREATH

OF CLEAN AIR

Leaf through one of the major "mass media" magazines.

Lots of color, swingin' headlines, unusual photos, hep copy. Man, they're with it!

Then open a farm magazine.

Lots of color, headlines that don't make you blush, story-telling photos, crisp/clean copy that carries you along from seedtime to harvest to more efficient ways of co-operating with the Creator in the continuing work of creation, bringing new life out of the soil to feed a hungry world.

The contrast is like stepping out of an unkempt hoghouse into a sparkling spring breeze.

Suddenly you realize how sick, sick, sick is the metropolitan press; it ignores the healthy and healthful to concentrate on the unusual, the bizarre, the psychopathic. Suddenly you realize how the mass media . . . including the metropolitan dailies and the networks . . . are to blame for a large share of what's wrong with the world today. By concentrating on the offbeat, the violent, the sick (on the excuse that it's "new" . . . apparently the wholesome isn't news) they spread the hippie movement, campus riots, flag-burning, drugs, promiscuity.

(Continued on next page)

Turn back to your farm paper. Here is news of solid accomplishment, of constructive endeavor. Here you don't read about young gangs beating up old women, but of youth ganging up to paint the church; not of teenage murders but of teens raising prize livestock and conserving God's good earth. It was a teenage boy, remember, who first broke the 200-bushel barrier in corn production... but you didn't read of it in the big city dailies. The multi-million-circulation "news" magazines never mentioned him.

Farm editors, apparently, consider the wholesome and constructive as news.

Suddenly you realize how our urban-centered mass media have set themselves up as manufacturers of world attitudes and morals... and what a ruinous job they're doing.

Suddenly you realize the farm press, like religious publications, is the last best hope of cleanliness, decency and good old-fashioned family-centered American wholesomeness.

— Dana C. Jennings, writing for the Vermont Catholic Tribune.

ENDANGERED SPECIES

SO what? In 1970, the federal government added 13 more species to the endangered species list, bringing the total to 102. What of it? Did you ever see a brown falcon, or a black-footed ferret? I never have, and I don't expect I ever will.

Who cares if the bald eagle becomes extinct, or if the peregrine falcon is never again seen in our skies? We can get along without them, after all. They aren't necessary to our well-being, at least not in any obvious way.

Let's look again at these assumptions. Can we simply assume that it doesn't matter if one animal species after another disappears? There are reasons to believe that it does matter.

Danger Signal

First, it matters because the disappearance of animal species is a danger signal to us human beings. Remember the canaries that miners used to take into the mines with

them in little cages? Canaries are very sensitive to the deadly methane gas which can collect in coal mines, and when the canary keeled over, the miners knew it was time to get out because they would be the next to go.

Is it possible that the endangered species are a warning to us? One by



one they are keeling over, and they are saying to us, "Look out! Something is wrong. Something is out of whack, when we can no longer live in the world with you humans." The ominous question is, how long will it be before it is people who start keeling over, and will it be too late then because we did not heed the warnings?

Right to Life

Second, it matters because it says something about our attitude toward the creatures who share this earth with us. Do they not have the same God-given right to life that we have? By what arrogance do we presume to pollute the world and destroy the habitats of wild creatures so they cannot go on living?

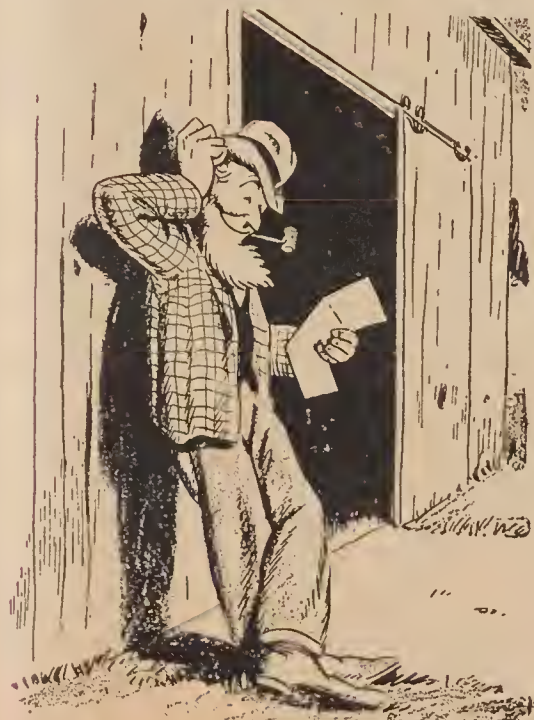
Are we stewards of the earth, or merely exploiters and despoilers? Is it not possible for us to live, and at the same time preserve the conditions which make it possible for other forms to life to live with us?

Will we let only those creatures live that have a direct usefulness to us, or will we cherish wild things for their own sake?

It is time to broaden our horizons. It is time to learn an appreciation of wild things, before they are no longer there to enjoy. — Deane F. Lavender, Ithaca, New York.

The Song of the Lazy Farmer

At last I've figured out a way to make my loafing knowledge pay; I'm authoring a book, by gee, outlining my philosophy on how to lengthen out life's span by skipping



work when'er you can. It's now a month since I begun, I've got the first page almost done and have a title picked, 'twill be "There Are No Calluses on Me." I'm sure, unless my guess is missed, that I'll make all best-seller lists because my book will fill a need for something most folks want to read; they'll flock to stores in hungry herds to study my experienced words.

I think it's safe to say there ought to be a million copies bought; and that will bring in royalties enough to guarantee my ease for all the life that's left to me and give Mirandy some so she can hire an extra man instead of pouring orders on my head. My neighbors say he'll testify that there's no doubt I qualify for rating as an expert who well knows his subject through and through. There is one minor problem, though, it might take a year or so to get the doggone thing all writ because there's so much work to it.

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One entrance to the ancient walled city of Toledo is through the Bisagra Gate.



Portugal, Spain, and Morocco!

Travel to Spain and Portugal with AMERICAN AGRICULTURIST and Travel Service Bureau from **September 9 to 30**. Early autumn is perhaps the nicest time of year to visit these countries, and for our 1971 tour, we've included as an added attraction the Royal Cities of Morocco — fabled Casablanca, Marrakech, Meknes, Fez, Rabat and Tangier.

Lisbon, Portugal's capital city is the first highlight of our tour. Here we'll visit the fascinating fish market, St. George's Castle, the famed Coach Museum and take a side excursion to see several other castles in the area, also the fishing village of Cascais and fashionable Estoril.

Next we fly to the west coast of **North Africa** to spend a week in this land of romance and intrigue. A local English speaking guide will be with us on each sightseeing tour, as we visit all the fascinating places in each imperial city. There are many delightful shops offering everything the tourist could desire, and we have plenty of time to browse for treasures.

Leaving Africa, we cruise across the Straits of Gibraltar and along the Spanish coast to **Torremolinos**, a very popular seaside resort with a fine beach. We'll enjoy the change of pace, with a full day at leisure to swim and sunbathe.

In the Moorish city of **Granada** we'll see the Alhambra, considered the rarest piece of architecture in the western world, the tombs of Ferdinand and Isabella in the Royal Chapel next to the Cathedral, and the gypsy quarter of Monte Sacro.

Seville is a city of shady patios, marble courtyards, fountains and flowers; perhaps it is the most "Spanish" of all Spain's cities and also one of the world's most beautiful cities. Sightseeing will include La Giralda, the Palace of St. Teamo and Maria Luisa Park, also the tomb of Columbus, Don Juan's home, and the Alcazar with its beautiful gardens.

On our way to Madrid, we stop at Cordoba to see a cathedral built by the Arabs in the 8th Century and the Roman bridge. **Madrid** is Spain's showplace and a beautifully planned modern city. We spend three days in this area, making side excursions to ancient Toledo which is almost the same today as it has been for the last thousand years, to Segovia in the heart of old Castile, and to Escorial to visit its massive monastery.

Our Holiday in Spain and Portugal, like all AMERICAN AGRICULTURIST tours, is a first class, escorted, all-expense vacation. Our tour manager looks after all details, and you will travel in the most carefree, enjoyable way possible and with a friendly, congenial group of people. Make your reservation soon, so you won't be disappointed.

Summer Tours

We'd like to remind you that we also have fine vacations planned for the summer, and here are very brief descriptions of a few trips.

Great Lakes Circle Tour, July 9 to 24. Includes Niagara Falls, the Shakesperean Stratford Festival, Greenfield Village, Dutch Village at Holland (Michigan), Mackinac

Island, the Soo Locks, lovely Wisconsin Dells and Chicago.

Heart o' the West Holiday, July 31 to August 22. A few highlights of this tour are the famous Black Hills section of South Dakota with Mt. Rushmore, the Crazy Horse Memorial site, Needles Highway, and the Passion Play at Spearfish; Yellowstone National Park, the Grand Tetons, Salt Lake City, Bryce Canyon and Zion National Parks, the Grand Canyon, Mesa Verde National Park, Colorado Springs and Denver, Pike's Peak, Garden of the Gods, and the U.S. Air Force Academy.

Grand Alpine Holiday, August 3 to 26. If you like mountains, lakes, glaciers, green valleys, picturesque villages, and old-world cities, this is the trip for you! A few of the things we will see are Lucerne, Berne, Geneva, Zermatt and the mighty Matterhorn, Interlaken, the majestic Jungfrau, St. Moritz, the Dolomites and Cortina, Vienna, Salzburg, Innsbruck, and the Bavarian and Tyrolian Alps. This tour has been sold out the last two years.

Eastern Canada-Saguenay-Bermuda Cruise (August 5-18) aboard the new, spacious TS Hamburg. Six

ports of call — Cape Breton Island, the Gaspé Peninsula, Quebec City, Prince Edward Island, Halifax and Bermuda — interesting shore excursions, and pleasant cruising on the Atlantic, the St. Lawrence and the lovely Saguenay River combine to make this a wonderful experience from start to finish. Also there's marvelous food and service, fine entertainment aboard ship, with every comfort or facility a cruise ship could possibly provide.

Alaska-Glacier Park Holiday, August 19 to September 4. Three nights in beautiful Glacier Park and a drive over famous Going-to-the-Sun Highway, Vancouver, the lovely Inside Passage Cruise on the SS Prince George, stops at Prince Rupert, Ketchikan, Juneau, Skagway, and Wrangell; Victoria and Seattle — these are the highlights of this year's Alaska Holiday.

Mail Coupon Today

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Fair Dates

(Continued from page 16)

Harford Fair	Aug. 17-21
Venango County Fair, Franklin	Aug. 17-21
Rostraver Township Fair, Belle Vernon	Aug. 18-20
Blue Valley Farm Show, Bangor	Aug. 18-21
Harrold Free Fair, Greensburg	Aug. 18-21
Middletown Grange Fair, Wrightstown	Aug. 19-21
Westmoreland County Fair, Greensburg	Aug. 21-28
Carbon County Fair, Lehigh	Aug. 22-28
Somerset County Fair, Meyersdale	Aug. 22-29
Crawford County Fair, Meadville	Aug. 23-28
Bullskin Township Community Fair, Connellsville	Aug. 23-28
Fulton County Fair, McConnellsburg	Aug. 23-28
Scott Township Community Fair, Olyphant	Aug. 24-27
West End Fair, Gilbert	Aug. 24-28
Sewickley Community Fair, West Newton	Aug. 25-27
Transfer Harvest Home Fair	Aug. 26-28
Centre County Fair, Centre Hall	Aug. 27-Sept. 2
Indiana County Fair	Aug. 29-Sept. 4
Wattsburg Fair	Aug. 30-Sept. 4
Sullivan County Fair, Forksville	Aug. 31-Sept. 4
Greene-Dreher-Sterling Fair, Newfoundland	Aug. 31-Sept. 4
Big Knob Grange Fair, Rochester	Sept. 1-4
Hookstown Grange Fair	Sept. 1-4
Allegheny County Fair and Western Exposition, Library	Sept. 2-6
Great Stoneboro Fair	Sept. 2-6
Dallas Area Fall Fair, Forty-Fort	Sept. 3-5
Bear Lake Community Fair	Sept. 3-6
Juniata County Fair, Port Royal	Sept. 4-11
Cambria County Fair, Ebensburg	Sept. 6-11
Ox Hill Community Fair, Home	Sept. 6-11
South Mountain Fair, Arendtsville	Sept. 7-11
Waterford Free Fair	Sept. 7-11
Pymatuning Community Fair, Jamestown	Sept. 8-11
Economy Grange Fair, Baden	Sept. 9-11
Green Township Community Fair, Commodore	Sept. 13-18

Bellwood-Antis Farm Show, Bellwood	Sept. 14-16
York Inter-State Fair	Sept. 14-18
Southern Lancaster County Community Fair, Quarryville	Sept. 15-17
Cochranon Community Fair	Sept. 15-18
Albion Area Fair	Sept. 15-18
West Alexander Fair	Sept. 15-18
Greenfield Township Community Fair, Claysburg	Sept. 16-18
North East Community Fair	Sept. 16-18
Berlin Brothersvalley Community Fair	Sept. 16-18
Gratz Fair	Sept. 19-25
Williamsburg Community Farm Show	Sept. 20-23
Pennsylvania Junior Dairy Show, Harrisburg	Sept. 20
Pennsylvania All-American Dairy Show, Harrisburg	Sept. 20-24
Pennsylvania Black and White Show, Harrisburg	Sept. 21
Beaver Community Fair, Beaver Springs	Sept. 21-25
West Lampeter Community Fair, Lampeter	Sept. 22-24
Harmony Grange Community Fair, Westover	Sept. 22-25
Ephrata Fair	Sept. 22-25
Oley Valley Community Fair	Sept. 23-25
Sinking Valley Community Farm Show	Sept. 23-25
Bloomsburg Fair	Sept. 27-Oct. 2
Morrison Cove Community Fair, Martinsburg	Sept. 28-Oct. 1
New Holland Farmers Fair	Sept. 29-Oct. 2
Hollidaysburg Community Farm Show	Oct. 4-7
Manheim Community Farm Show	Oct. 6-8
Unionville Community Fair	Oct. 6-9
Tri-Valley Community Fair, Hegins	Oct. 7-10
Dillsburg Community Fair	Oct. 21-23
Pennsylvania Livestock Exposition, Harrisburg	Nov. 6-13
Uniontown Poultry and Farm Products Show	Nov. 26-28
Pennsylvania Farm Show, Harrisburg	Jan. 10-14, 1972

Fair dates in the other north-eastern states will be in the July issue.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Great Lakes Circle Tour _____ Spain-Portugal _____
Heart o' the West _____ Grand European Tour _____
Alaska Cruise _____ Eastern Canada-Bermuda _____
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Dollar Guide



NEW FEDERAL REGULATIONS for farm truck drivers blocked until next December 1. It's likely that trucks with gross weight under 10,000 pounds will be exempt . . . and that other exemptions may be made on behalf of farmers.

NEW ENGLAND Milk Price Forecast Committee predicts \$5.80 (per cwt) milk (3.5 percent, 201-210 mile zone) in Massachusetts-Rhode Island-New Hampshire marketing area for May. After a June dip to \$5.76, the blend price should rise steadily to a high of \$6.84 in October, then taper off gradually at year-end. The revised estimates result from higher support prices announced by Secretary of Agriculture Hardin.

CHEMICAL CONTROL of corn leaf blight is possible. Zinc-ion maneb, trade-named Dithane M-45 and Manzate 200, has been cleared for full-season use and unrestricted feeding for 1971 by the USDA. Fungicides must be applied as soon as first small, oval lesions appear. Application can be by spray rig or from the air.

U.S. FARM INCOME UP by 40 percent by 1980... this is prediction of Center for Agricultural and Economic Adjustment, Iowa State University, Ames, Iowa 50010. The catch . . . CAED predicts this if all inorganic fertilizers are banned so that food supply is reduced.

Farmers instinctively resist banning pesticides and fertilizers, but the potential for enhancing farm income thereby is fantastic. For real eye-opener on the subject, order CAED Report #38 from address above . . . price: \$1.

NEPPCO DIRECTORS took some far-reaching policy steps at recent meeting. Northeastern Poultry Producers Council will review each proposed piece of market order legislation on individual merits, is no longer on record as unalterably opposed to marketing orders. Another change of policy permits organization to support programs that allow producers to raise and administer funds, through voluntary or government-mandated programs, for promotion of poultry and eggs, as well as marketing and merchandising research.

LEASING EQUIPMENT is not new, but is rapidly becoming more common in Northeast . . . as is custom hiring of work done. Visits with farmers across the region reveal that thousands of acres are being planted and harvested by custom operators.

One dairyman reports leasing a brand-new tractor with four-wheel drive (115 hp) for four weeks to plow 180 acres . . . says the costs are lower than if he owned one.

When "pencil" out cost comparisons, don't forget the "DIRTY five" of ownership . . . depreciation, interest, repairs, taxes, insurance.

HEAVY FERTILIZATION, especially on light soils, tends to make soils increasingly acid. For top yields of corn . . . now typically loaded with high-nitrogen fertilizer . . . it's especially important to keep close tabs on pH level of soil.

For every 20 pounds of nitrogen applied to soil from inorganic sources, 36 pounds of limestone are required to neutralize its acidity.

AUTOMOBILE INSURANCE in New Jersey will not have \$25 or \$50-deductible clauses in collision insurance after July 1, 1971. Only \$100-deductible after that date.

ALL EGG BREAKING and drying plants processing liquid, frozen or dried egg products must operate under continuous USDA inspection beginning July 1, 1971.

NECKCHAIN NUMBERS hung on dairy cows are handy for identification. When a cow is sold, it's a temptation to re-use her tag to save a shekel. However, dairymen report that such re-use can create confusion in keeping and using herd records . . . DHIC, breeding, etc.

AG POLLUTION is hot topic, documented facts often ignored. For a 20-minute slide presentation kit and script on the subject . . . or to arrange for a guest speaker . . . contact Rich Hansen, Geigy Agricultural Chemicals, Ardsley, New York 10502.

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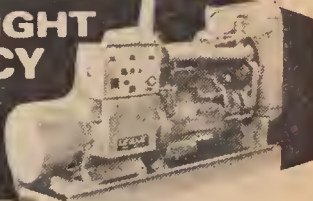
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IT'S STRAWBERRY TIME AGAIN!

by Alberta Shackelton

Strawberries and Cream! Strawberry Shortcake! What visions of goodness these all-time favorites bring to mind, as we eagerly await those first ruby-red morsels, fresh from the strawberry patch! The season is short, so feature these treasures often in every possible way—at breakfast, lunch and dinner, or as between-meal pick-ups. Then be sure to freeze a good supply for later enjoyment. They can well be the pride of your freezer, as they keep their natural color and fresh flavor for months.

The following three recipes from the American Dairy Association Test Kitchen match the tempting strawberry treats featured on our cover this month.

LINDY'S STRAWBERRY CHEESECAKE

Crust:

- ½ cup (1 stick) butter
- ¼ cup sugar
- 1 egg yolk
- 1 teaspoon grated lemon peel
- ½ teaspoon vanilla
- 1 cup all-purpose flour

Cream together butter and sugar until light and fluffy; beat in egg yolk, lemon peel and vanilla. Gradually add flour. Pat ⅓ of dough over bottom of buttered 9-inch spring form pan (sides removed). Bake in preheated oven (400°) 8 to 10 minutes, or until browned. Cool on wire rack and attach sides to bottom. Pat remaining dough on sides to a height of 2¼ inches, gently sealing to bottom crust. Refrigerate while preparing filling.

Filling:

- 5 packages (8 oz. ea.) cream cheese at room temperature
- 1¾ cups sugar
- 3 tablespoons flour
- 1½ teaspoons grated orange peel
- 1½ teaspoons grated lemon peel
- ¼ teaspoon vanilla
- 5 whole eggs
- 2 egg yolks
- ¼ cup heavy cream

Combine cream cheese, sugar, flour, peels and vanilla. Beat at high speed to blend well. Beat in eggs, one at a time, and then the yolks; stir in cream and pour into pastry-lined pan. Bake 8 minutes in a preheated very hot oven (500°). Reduce oven temperature to moderate (350°) and continue baking for one hour. Cool on wire rack. When completely cooled, remove sides of pan and glaze with strawberry glaze.

Glaze:

- 1 quart strawberries
- ¾ cup sugar
- ¼ cup water
- 1½ tablespoons cornstarch
- Dash salt
- 1 teaspoon butter
- Red food coloring

Wash and hull strawberries. Crush 1 cup of uneven-sized berries and set aside remainder. Combine crushed berries, sugar, water, cornstarch and salt; cook over medium heat with constant stirring until thickened. Cook 2 additional minutes; stir in butter and food coloring to tint desired shade. Put through strainer and cool glaze slightly. Arrange whole berries evenly on top of cheesecake and spoon glaze evenly

over berries. Makes 16 to 20 servings.

STRAWBERRY TARTS

Tart Shells:

- 1¼ cup all-purpose flour
- 2 teaspoons confectioners' sugar
- ¼ teaspoon salt
- 3 tablespoons butter
- 3 tablespoons shortening
- 3 tablespoons water

Sift together flour, sugar and salt; cut in butter and shortening until mixture resembles small peas. Sprinkle water over mixture, 1 tablespoon at a time, mixing lightly with fork; gather up dough and shape into a ball and divide into 8 equal portions.

stirring. Stir in butter and vanilla. Cover and cool, stirring occasionally. Fold in whipped cream and chill. Divide evenly among the tart shells. **Glaze:** Use same recipe for Glaze given under Lindy's Strawberry Cheesecake; arrange berries on top of filling in each tart shell and spoon glaze over berries; chill.

STRAWBERRIES A LA RUSSE

- 1 quart strawberries
- 1 cup dairy sour cream
- 1 to 2 tablespoons sugar
- ¼ to ½ teaspoon grated lemon peel

Wash and hull berries and arrange in 6 to 8 sherbet glasses. Combine remaining ingredients and spoon

Pour the slightly thickened gelatine mixture over all. Chill thoroughly. At serving time unmold on a large salad plate, surround with crisp salad greens, and serve with Strawberry Whipped Cream Dressing. Serves 8 to 10.

To Make Dressing: Combine 1 cup of your favorite cooked salad dressing or mayonnaise with ½ cup heavy cream, (whipped), 2 tablespoons confectioners' sugar and 1 cup mashed strawberries.

STRAWBERRY FLAMINGO

- 1 quart strawberries
- 1 cup sugar
- 3 cups strawberry juice and water
- ½ cup quick cooking tapioca
- ½ teaspoon salt
- ½ cup heavy cream, whipped

Wash, hull and slice berries. Add sugar and let stand 30 minutes. Drain berries well and add enough water to juice to make 3 cups. Combine with sugar, tapioca and salt. Mix well and cook over medium heat with constant stirring until mixture comes to a boil. Remove from heat and cool, stirring occasionally. Fold in well drained berries and chill.

Using half the mixture, divide it between 6 parfait glasses. Fold whipped cream into remaining mixture and pile lightly on top of mixture in each glass. Garnish with dot of whipped cream and whole berry. Serves 6.

STRAWBERRY CREME

- 2 packages strawberry flavored gelatine
- ¼ teaspoon salt
- ½ cup sugar
- 2 cups boiling water
- 1½ cups cold water
- 1 cup heavy cream
- 1 teaspoon almond flavoring
- 2 to 3 cups sweetened strawberry halves

Dissolve gelatine, salt and sugar in boiling water; add cold water and cool. Stir in unwhipped cream and almond flavoring. Chill until slightly thickened. Whip with egg beater until fluffy and thickened. Spoon into a ring mold and chill until very firm. Unmold at serving time and fill center of ring with sweetened strawberry halves. Serves 8.



Photo: General Foods Kitchens

Pictured above is Strawberry Creme. Strawberry gelatine combined with liquid cream and almond flavoring provides a smooth textured mousse that's really quite different. Served with fresh strawberries, this heavenly dessert is an elegant refreshment for a bridal shower or graduation celebration.

On lightly floured surface, roll each portion into a 5-inch circle and shape over back of individual tart pans, 3½ x 1¼ inches. Place on baking sheet, prick with fork and bake in hot oven (400°) 20 to 25 minutes. Remove shells from pans to wire rack and cool.

Filling:

- ¼ cup all-purpose flour
- ¼ cup sugar
- ¼ teaspoon salt
- 1½ cups milk
- 2 eggs, slightly beaten
- 1 tablespoon butter
- 1 teaspoon vanilla
- ½ cup heavy cream, whipped

Combine flour, sugar and salt and gradually add milk. Cook over medium heat with constant stirring until thickened; cook 2 additional minutes. Add a small amount of hot mixture to eggs and return all to saucepan and cook 1 minute with

over berries. Garnish with additional berries if desired.

SPRINGTIME STRAWBERRY SALAD

- 2 packages strawberry flavored gelatine
- 2 cups boiling water
- 1¾ cups ginger ale
- 2 small packages (3 oz. ea.) cream cheese
- ½ cup chopped nuts
- 2 cups fresh strawberries, well drained
- ½ cup confectioners' sugar

Dissolve gelatine in boiling water; add ginger ale slowly by pouring down side of pan and stirring gently (do not swish around). Cool until slightly thickened. Form the cream cheese into small balls, roll each in chopped nuts, and place in bottom of a ring mold (lightly coated with salad oil), alternately with the berries which have been combined lightly with the confectioners' sugar.

AROUND



the HOUSE

Leather substitute, "Corfam," was heralded several years ago as the shoe of the future—always stayed shined, looked like new, and cleaned with a damp cloth. Now DuPont Company has announced it will be taken off the market within a year because not enough shoes were sold to show a profit.

Do you know how to reduce foaming when cooking dry beans? The USDA says to add one teaspoon of meat drippings or other fat to the cooking water for each cup of beans.

American Agriculturist, June, 1971

The AA Clothes Line

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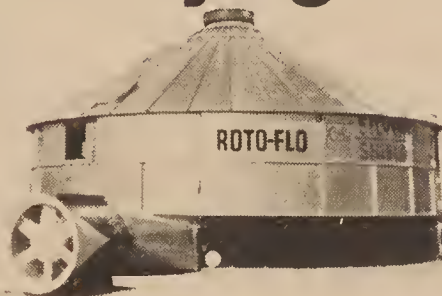
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by Katy and George Abraham

A question we get often is "Why do my pepper plants produce all bush and no peppers?" Most of us know that sometimes peppers bear and sometimes they don't! There isn't a variety that you can always depend on, but some are better than others.

Pennwonder is a good variety to plant. If you live in an area where the growing season is short, I'd steer clear of California Wonder. In our gardens, Vinedale has been the most faithful producer. It lacks the thick walls that the blockier peppers have, but it does bear. Fruits are produced upside down, early in the season.

One reason why some peppers fail to produce is water loss from the tops due to high temperature, also low humidity and hot drying winds at blossom or bud time. These factors, or any factor which causes a shortage of water in the plant, will cause the buds and blooms to drop off.

Does it pay to plant peppers close together for cross pollination? No. This is an old wives' tale. Tests show that most of the shedding takes place after pollination and even after the fertilization of the ovary.

Substitute For Drugs

If you want to keep the young folks away from drugs, why not get them interested in some phase of horticulture, such as gardening? Many of our young people have too much time on their hands, and you know what happens then — idleness begets trouble.

Encourage the young folks to have a project, and the young aren't the only ones who need this form of therapy. With unemployment and shorter work weeks, there's a lot of extra time on hand. Will this be good or bad for our health? It's going to be harmful if we don't have some sensible way of using the extra hours we don't work.

A good many adults need guidance and education in how to keep themselves busy when they have a lot of time on their hands. Some people spend an average of 21 hours a week watching TV. Can you imagine spending the equivalent of 50 percent of your entire working life, passively watching television?

The best way to make use of idle time is to garden. We're in an age of leisure, and our society is likely to decay if we don't spend our leisure time more productively. Aside from maintaining mental health, gardening is also profitable. You can make \$4.00 an hour in the vegetable patch and eat better to boot!

Poison Ivy Again

A lot of us have poison ivy vines around the house and don't realize it. That's how deceptive this plant is. If the vine is near ornamentals, watch out for weedkillers. It takes only a little drift to ruin neighboring plants.

You might be able to spot treat the vines by pouring on old motor oil or by using a weedkiller. Some readers tell us they sprinkle a little borax on the foliage, and it does a

good job. Another trick is to place small bottles of household bleach near the weeds, then carefully (use rubber gloves) place tip end of the ivy into the bleach. The plants absorb the liquid and commit suicide.

If the vine is where you can mow it, run the rotary mower over the patch. Don't change blades with your bare hands, or you can get a dose of ivy poisoning. Where vines have climbed trees, try cutting them off at the base and putting the stub in a bottle of bleach.

Tomatoes On A Corset

A reader tells us he planted six hybrid tomato plants and picked 4½ bushels of tomatoes. Most of the fruit were as "large as a grapefruit," he says. Of course, he put in plenty of sheep manure to make the soil rich. When the plants started to blossom, he sprayed each bloom with a blossom-set hormone spray. The plants were staked to a 12-foot trellis, and after he got tired of tying them, he just let the vines hang.

Growing tomato vines inside a wire corset or on a trellis is one good way to get plenty of clean fruit. A single plant inside a wire corset can give up to 60 pounds of fruit. Tomato trellising or growing tomatoes by the "Chinese Tomato Ring" is also the best way to get a lot of fruit in a small space.

According to one university report, 25 tomato plants produced more than ¾ ton of fruit with the corset or trellis method. You can get concrete re-inforcing wire from your lumber yard to make the cylinder or the wire trellis.

Right now many of you are wondering if tomatoes should be staked or allowed to ramble over a straw mulch. Some advantages of staking are earlier fruiting and ripening, clean fruit and free of ground spots, larger fruit on the average, easier picking, and you can get higher production per unit of garden space. It will take more plants to achieve this, however.

Some disadvantages of staking are the work involved in pruning and tying, less fruit per plant, more sun-scalded and cracked fruit, a greater likelihood of blossom-end rot in most seasons (especially dry), and more plants needed for same total production.

AA Garden Clinic

A reader writes, "Our ivy plants have a sticky substance on leaves, but we can't find any insects. What is it?"

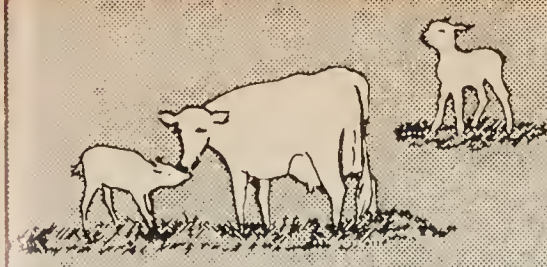
Answer — Sounds like aphids, scale, or white fly trouble. Wash leaves with soapy water. Also spray with malathion or nicotine sulfate.

COOKED UP

by Donna Evleth

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Announcing they'll serve four with ease,
I find quite often, sad but true
That with some stretching, they'll feed two.

American Agriculturist, June, 1971



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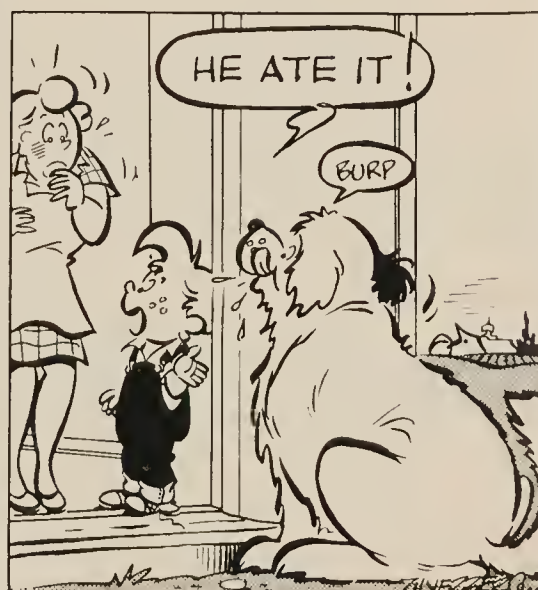
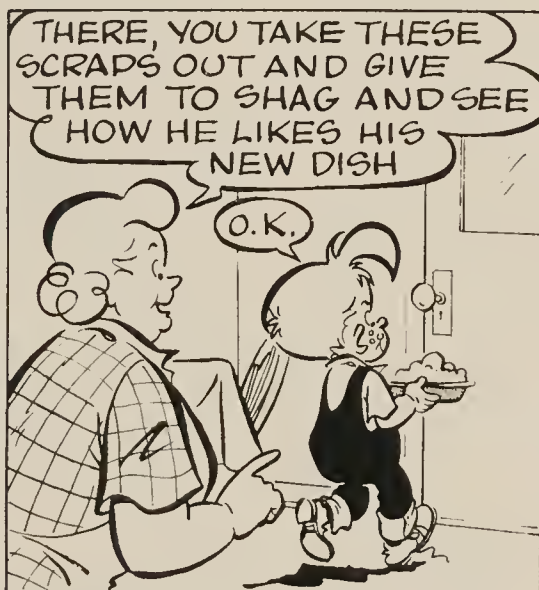
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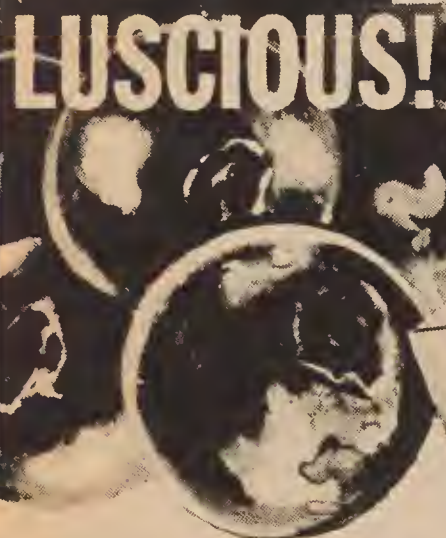
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EASY TO GROW! Mix plenty of peat moss with soil in planting holes for loose texture and organic richness. Plant 3-4 ft. apart.

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STERN'S NURSERIES Dept. M-2, Geneva, N. Y. 14456
Please send my BLUEBERRY plants guaranteed as stated above. Cat. No. 71207.

☐ Check or Money Order enclosed. Or charge my account with
☐ Diners Club, ☐ Uni-Card, ☐ American Express, ☐ Carte
Blanche, ☐ BankAmericard, ☐ Master Charge.

☐ 5 for \$ 2.00 Specify Acct. # _____
☐ 10 for 3.75 Name _____
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August 10, 11, 12
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EDUCATIONAL RESOURCES
Dept. AA, P.O. Box 8053
Erie, Pa. 16505

U-PICK EXPERTS

Forty-two acres of a crop may not sound like a big deal... unless it's strawberries! That's the acreage of strawberries that will be bearing this summer at the farm of Paul Grisamore, whose house is located at the corner of Goose Street and Cowan Road near East Genoa, New York (southern Cayuga County). The address is R.D. 2, Locke, New York.

They Pick

The Grisamores, though, don't try to pick more than a couple hundred quarts... they let the customers pick their own! On one peak day in 1970, there were 2500 people who came to do just that.

The picking season here... involving such varieties as Earlidawn, Catskill, Sunrise, and Redcoat... runs from about June 12 to July 10. "After July 10, it's hard to give strawberries away," Paul reports. "We had an advertisement that unintentionally ran two weeks late one year... but it attracted only a dribble of customers. It seems we start earlier each year."

Starting earlier, of course, involves such things as removing straw mulch from the rows a bit sooner. And it also involves a rising risk of that strawberry-grower's nightmare... a late frost that clobbers blossoms.

Irrigation

One of the big battles in the business is frost control, done here by irrigation. "The fields sometimes turn into solid sheets of ice," Paul comments, "but it does the trick in saving the crop."

Irrigation is also available, of course, to provide plenty of water for the crop. "We want an inch of water per week up to picking time," Paul says.

When picking time arrives, the Grisamores are in a pressure cooker of work, seven days a week, for about a month. Paul and his wife Christine have four daughters, three of whom are old enough to help out. Then there is one full-time employee, plus another hired part-time in the summer... and four or five high school students during the summer. At times, a crew of other high-school students are hired for special jobs like pulling weeds in strawberry fields.

One person sells baskets and 8-quart carrying trays to the "U-pickers." None are loaned, but pickers can get a refund if they return baskets or carriers. Four people show the customers where to pick, and two or three serve as cashiers. Few strawberry growers supervise the picking activities of the customers, but here they do... making sure that each customer has a fresh section of row for picking, and that he leaves a marking flag where he left off.

People

The great majority of the people who come to the Grisamore farm are both ethical and practical, but there are some who would strain anyone's religion:

Those who pick one quart, and eat six while picking! (Paul plans on establishing a minimum charge per carload.)

—The lazy man who strolls into the strawberry patch, and three minutes later returns with 10 quarts of berries... obviously lifted off the trays of other pickers.

—The chiselers who carefully stack strawberries in an attempt to get two quarts of berries in... or on... each basket.

Heaped quarts cost the picker 50 cents... regular quarts 35 cents. No persons under 12 years of age are allowed in the field. These rules are not always easy to enforce!

Started Pullets

When things get too hectic in Strawberryland, Paul can work on management plans at another enterprise for a breather. He's growing started pullets for a hatchery... 32,000 in a present batch, but a capacity of 50,000. For good labor distribution, the two batches each year are scheduled so the growing house is empty during the crunch of strawberry-picking time.

Looking ahead, the Grisamores are planning for an expanded distribution of fruits and vegetables for U-pick customers throughout the growing season. A few peas, a few potatoes, some blueberries and raspberries, and some tree fruits will make the place everybody's garden spot... offering an opportunity to combine the fun of harvesting with the quality of professionally-grown fruits and vegetables.



Between the middle of June and the middle of July, thousands of people come to the Grisamore farm to pick strawberries.

LITTLE POND—BIG FARM

The Little Pond Farm on Smith Road, four miles north of Clifton Springs (Ontario County), New York, is a sizable outfit. Operated by Irving DeCook and his sons (Raymond and Walter) it involves 950 acres . . . of which 250 are rented.

There are 180 head of cattle here, including 107 milkers. The DeCooks plan a corn crop of around 400 acres this year, had 350 in 1970. A six-row head has been ordered for the combine so corn harvest can go even faster come fall.

All this is handled by the three men, with the aid of some part-time help in summer. In 1962, a formal three-way partnership was set up so that all have ownership interest in the operation.

The Little Pond Farm was not always this size. Irving bought the place in 1940 . . . 48 acres and two cows. By 1956, he was up to 16 cows . . . then to 36, and to 48 in 1960. Land, buildings, and equipment were also added over the years. A barn fire in 1960 didn't even slow the process of growth very much.

Ownership of cattle has gradually transferred to Walter and Raymond. "I own only 3 or 4 cows," Irving comments.

"You can't successfully hire sons for wages very long," he goes on. "Let 'em in on growth in equity if you want to keep them in the business."

Here's a big farm that has grown slowly but surely from very humble beginnings. It's the path followed by most sizable farm operations . . . involving the gradual acquisition of large amounts of capital, and the competent management required for the process.—G.L.C.

FUNDS FOR 4-H

A fund-raising effort to expand the 4-H program to reach thousands more people in cities and rural areas of the Empire State is now underway. The New York State 4-H Foundation board of trustees, with Donald M.



Edward Duffy

Bay of Rochester as chairman, is spearheading the campaign . . . the first organized public appeal on behalf of 4-H in the 22-year history of the Foundation.

Edward E. Duffy, Utica, New York, president of the Marine Midland Bank-Central, is general chairman of the campaign to raise \$1,300,000. He explains that the funds raised will enable 4-H to experiment, innovate and modernize the total program throughout the State, working usually within existing county structures. The greatest share of project funding is earmarked for local county use over the next five years.

In 1970, 360,000 young people in New York State participated in the 4-H program under the leadership of 26,000 teenage and adult volunteers. In the next decade, 4-H hopes to expand leadership to 100,000 and participants to one million.

The efforts in the Empire State *American Agriculturist*, June, 1971

are part of a nationwide 4-H expansion program to double youth involvement from 3.5 million young people to 7 million by 1975.

LEARN BY MAIL

Want to increase your general knowledge? Continue your formal education? Or just learn more about a hobby? You can do it by enrolling in one of the many correspondence courses offered by Pennsylvania State University.

Prices are reasonable; most courses are under \$5. For complete information and a list of subjects, write: Correspondence Courses, 202 Agricultural Educational Building, Pennsylvania State University, University Park, Pennsylvania 16802.



Lee Schenk loads fertilizer supplied by the Tennessee Valley Authority. TVA does much of the fertilizer research in U.S., provides it at reduced prices to many demonstration farms across the country.

DEMONSTRATION FARM

The Extension Service of New York State has named several farms across the state as demonstration farms . . . where a team approach by college specialists and county agents is intended to assist the farm family in applying a combination of management techniques. In western New York, the farm is that of Lee Schenk of Lime Lake in Cattaraugus County.

Lee is a young farmer just getting started on a 300-acre place with 75 cows. His wife Marie is chief bookkeeper for the business.

Over the next five years, various Extension-sponsored meetings will be held at the Schenk farm.

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Manufacturer's suggested retail price with 12" bar & chain

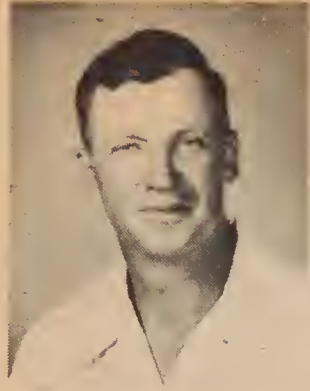
The new Homelite 150 Automatic is available at more servicing dealers than any other chain saw sold. Check the Yellow Pages for your nearest Homelite chain saw dealer — drop in and see the No. 1 chain saw buy. Homelite, A Textron Division, Riverdale Ave., Port Chester, N.Y. 10573

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Gayway Farm Notes

by HAROLD HAWLEY

THE NEW EQUIPMENT

It's one man's view that the machinery companies missed the boat when they planned their ads for this spring. Sure, they devoted much space to the newest in tractors, planters, choppers, and all the rest, but little space was granted to manure spreaders.

A ride in any direction in mid-April suggested that much of last winter's manure still had to be spread. It was piled behind barns, out in fields near the road, and wherever else it was possible to get it during the prolonged snow season.

Two things seem clear. One is that a lot of it isn't going to be spread this spring. The other lead-pipe cinch is that a lot of old manure scoops and spreaders are going to be found wanting before the job is finished. The dealer who has the equipment on hand, ready to go, should find a ready market. He just hopes the company making his brand advertised it widely so folks will come to his place of business.

It's also likely that many of those big piles out in the field will get spread by a bulldozer. All things considered, that might be a pretty fast way to move it around enough so it could be plowed down.

WHO HAS THE ANSWER?

Our cows are in a free-stall setup and we have a couple of boxes of minerals and one of loose salt for them to eat from. In addition, the pellets they get in the parlor have minerals in them. I should add, however, that only cows making over 50 pounds of milk per day get any pellets. All cows are fed high-moisture ground ear corn (HMEC) along with corn silage and haylage.

Well, anyway, this release came out from the Extension folks suggesting that feeding minerals in boxes as we do is a pretty wasteful practice. Cows, we were told, eat in excess of needs and particular cows may eat and therefore waste much more than they need.

I assume the writer was thinking in terms of cows being fed all their grain in the parlor as against part being fed in the bunk as is commonly the case. With all the grain fed in the parlor, most cows would be getting at least a little grain and thus some of the minerals contained therein.

However, even in that case, we wonder if the cow late in lactation and approaching calving would be getting grain enough to supply the necessary minerals in whatever is the necessary amount.

In the barns where a part of the grain is fed in the bunk as HMEC we certainly question that dry cows

can meet their mineral needs without some supplements. However, for several days after reading the release we paid special attention to which cows were at the mineral boxes whenever we were in the barn.

Invariably, it was a springer or a recently fresh cow that was "wasting" our money. Sure, others came and went too, but time after time we would see the springers and fresh cows dominating the scene.

Possibly if it were practical to isolate all such animals into a single group, the rest of the herd might get along without supplemental minerals. That not being practical in our setup, we will have to continue to feed minerals free-choice or face the possible consequences if we discontinue.

Before we started feeding HMEC, we fed a lot more commercial grain in the parlor fortified with vitamins and minerals and at one time had all kinds of problems at calving time and thereafter. The addition of free-choice minerals in the barn and the decline in such troubles went together...not proving anything, I suppose, but making us most reluctant to risk going back to those expensive experiences just to save the money we now spend on minerals.

WHAT HAPPENED?

The 1969 hunting season seemed to have thinned out the deer herd excessively in our immediate area. All last year we saw fewer deer than in any recent years and never any concentration of them. Last fall was very unprofitable from a hunting standpoint. Then came the long, hard winter. This spring we have seen more deer than we ever remember!

It's just not possible so many were here last summer, fall, and winter without their being seen. Did they move in during the winter or spring? Surely it suggests that in country like ours a long, hard winter with lots of snow is no great obstacle to deer.

Bad Dog

Speaking of snow and deer, why is it that a dog running a deer makes us all so mad? My gosh, let a beagle run a rabbit and everyone is happy. We take a dog afield to tip the scales in our favor when pheasant season is opened. A good hound running a fox meets with everyone's approval. But let a dog chase deer and there's trouble!

Even some of my "balance-of-nature-instant-ecology" friends who think it right and proper to re-introduce wolves in the Adirondacks to live off the deer herd advocate drastic measures to curb the deer-chasing dogs.

Of course, it's different in parts of the South where deer are hunted with dogs. Again, I see no great difference between running deer with a hound or a rabbit with a beagle, but it just isn't the custom here or the law either.

At any rate, I get just as excited when I see a pair of dogs chasing an exhausted deer in the snow. Frankly, the rest of the time I couldn't care less because it's a mighty rare dog that will catch one except when the deep snow favors him.

We saw a pretty hot and tired deer cross some plowed ground ahead of us the other day. That is, we thought she was tired until we saw the dogs that were following her. Five minutes behind her and really bushed. All my sympathy was with the deer, but common sense suggests she was in no great danger.

If one really bought all this balance-of-nature bit he'd end up saying that only the weak deer would get caught, and the herd would be better off without them. Certainly, we've seen foxes who thoroughly enjoyed exercising the local dogs just as much as the dogs enjoyed chasing them.

PINCHING A BUCK

Soil analyses on several fields have shown a little build-up of elements year by year. This year on three of the fields that were heavily manured this past winter, we eliminated the plow-down fertilizer. We usually broadcast a blend before plowing and then put on some "pop-up" fertilizer with the planter. This year on these three fields liquid nitrogen and atrazine were applied premerge after corn planting.

This seemed like a good year to ease off on the current application because of the high nutrient level and because we doubt that storing excess nutrients in the soil is good business.

Possibly we are over-reacting to the blight thing, but because of it...and because we had about convinced ourselves we had overdone the thickness of stand...this year we set our drop a little farther apart. Last year in 36-inch rows we had a 4-inch interval between kernels. This made a pretty high plant population.

This year, a 5-inch drop was our choice. This change doesn't sound like much but it suggests a 25 percent decline in plant population. We think we will still have plenty of corn per foot and hopefully our yields will actually be bigger.

THE NEW JOB

The last two or three years have brought a new job with them. As elm trees have died, the limbs have rotted and fallen. It's now pretty common to find a fence flattened by a big limb...or a bunch of limbs sprawled out across the cropland. It used to be that a springtime clean-up of down trees plus a trimming back of limbs that were out in the way was sufficient. Now a hayfield ready to be cut may first have to be cleaned up.

The number of trees to be cut and burned on many farms has made it just impossible to get them all down

and gone. The telephone and power companies are having their problems from the same source. One crew chief made an interesting observation. Their trouble doesn't come during a storm. Two, three, or four days after a good rain is when the wood finally rots through enough to let the limbs come down on the wires.

While the elms are apparently all going to go, we are encouraged that the chestnut trees we have started are doing pretty well. What a blessing it would be if a good variety of trees, chestnut or something else, could come along to beautify the countryside again as the stately elms certainly did.

REGISTRATION FEES

The folks in West Orange, Essex County, New Jersey came up with a new kind of headache for farmers. They passed an ordinance calling for a registration fee of \$25 per head per year for all four-legged animals except cats and dogs. Figure that one up for your herd and see how long it would take you to make some changes!

It's hard to imagine this happening anywhere, but I guess it could happen in any township you could name. Certainly non-farm voters outnumber farmers in even the most rural situations. Fortunately, most people are aware that we all need each other for food, for markets, for tax purposes, for community efforts, etc.



GRADUATION

Across the land, a new crop of June graduates is about to emerge. In spite of all our doubts and apprehensions, these are quite a bunch of youngsters...whether we are talking at the high school or college level. It's a fact of life that they know more and have a better understanding of what it's all about than their parents did at the same age.

Being a product of their environment, they surely have a lot of notions at variance with their elders...but also it must be said that they know why they are for or against something. Many of us absorbed and adopted the viewpoints and prejudices of our parents and our immediate society without evaluating them too much. Ask youngsters today how they "get that way" on an issue and they will tell you. You may not agree with their conclusions, but how good it is that they have thought it through!

What gives me the biggest lift and the most optimism for the future is the confidence these young people have in themselves. In the best traditions of the past, they will bite off too much and handle it. More and more, I'm convinced they will learn to choose and accept good leadership and methods to achieve their ends.

So my hat's off to them. They will be a credit to themselves and their parents and will, I trust, help build an even better America.

American Agriculturist, June, 1971



by M. A. Parsons

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mrs. Caroline Carnish, Andover	\$ 8.79
(refund on dress)	
Mr. Jay Van Wagner, Sherburne	11.30
(refund on board rule)	
Mr. Stuart Saunders, Chemung	123.39
(refund on tires)	
Mr. Harvey Scherter, Newark Valley	14.20
(refund on razor)	
Mrs. Leslie Drake, Earlville	9.65
(refund on plates)	
Mrs. Wm. Theadore, Roscoe	8.00
(refund on order)	
Mr. Alanza McIntosh, Sherman	51.01
(refund on order)	
Mrs. Mary A. Kozlowski, E. Syracuse	6.25
(refund on order)	

PENNSYLVANIA

Mr. Russell E. Harringer, Brookville	2.40
(refund on parts)	

NEW JERSEY

Mrs. George Maffatt, Trenton	28.84
(payment for damage)	

MAINE

Mr. Arthur R. Stevens, Bowdoinham	14.68
(refund on order)	

NEW HAMPSHIRE

Mrs. Freda Janes, Pittsfield	37.50
(refund on jacket)	
Mrs. Warren Alexander, Canard	27.60
(refund on candles)	
Mrs. Chester Davis, W. Ossipee	40.00
(payment for sign)	

VERMONT

Mr. Emmanuel Rabillard, Orleans	12.62
(refund on order)	

bureaus to help students find work, but remember that no school can promise you a job, including civil service.

Read the whole contract very carefully. Be sure it shows complete cost, arrangements for payment, any finance charges, and the cancellation charges.

WORLD FIELD RESEARCH

"Last year I received in the mail an ad from World Field Research, Inc., Mineola, New York. They offered to send me valuable products for testing and to pay me for my opinions. For this a \$10.00 registration fee was required, which I paid. They stated in their ad that the \$10.00 would be returned in case I wished to discontinue the program.

"I received a few products, for which they sent me coupons to be used toward the purchase price of other products that they had for sale.

"I finally wrote them to stop sending their products for testing, which they did, and to refund my money, which they did not.

"Anything you could do for me would be most appreciated."

We've had many inquiries and numerous complaints about this company. We were never very successful in getting answers or settlements; nor, as we understand it, was the National Better Business Bureau. In fact, they were suggesting that complainants might want to write the Inspection Service, Post Office Department, Washington, D. C.

Just recently, we have received a couple of answers from World Field Research, form letters, advising that "the extreme difficulty that the company has been placed in is being resolved through a Chapter XI reorganization which has enabled the company to resume operations and hopefully regain its fiscal position and eventually take care of past obligations as well as present ones."

Also, we have received a notice from a reader that the company has filed for bankruptcy and is trying to get back on its feet under the court's supervision. It is our understanding that, if you have a claim against the company, you can send a proof of claim form to Referee in Bankruptcy, West Wing, 262 Old Country Road, Mineola, New York 11501.

Several readers have asked if there is any connection between World Field Research and World Research Company, 51 West 35th Street, New York City. We have been informed that there is no connection.

Address mail to: Service Bureau,
Box 370, Ithaca, New York 14850.

SCHOOL

"I am a widow with a 17-year-old son who is working in a garage. A man came here and talked with us about a correspondence school for automotive mechanics and my son signed up, promising he would do the work required. However, he is working full time and has done nothing with the course except make the monthly payments. He has already paid almost \$100.00.

"Since neither of us can afford to squander money, could this course be cancelled?"

We asked our subscriber for a copy of the contract and found that she had also signed it, because her son is a minor, making the contract perfectly legal. The contract also sets forth the terms for cancellation, which in this case, being after 90 days but within 180 days, would be \$50 plus 50% of the net price or about \$227.00. We have written the school for a confirmation of the cancellation and the amount due.

This particular school is a reputable one, accredited by the National Home Study Council's Accrediting Commission, and there are many accredited correspondence schools. This time of year, representatives of correspondence schools are likely to be making calls on prospective students.

Before signing for such a course, you should make sure you have the time, money, perseverance, and the ability to profit from the course. Check to see if it is a reputable school. Ask for names and addresses of some former students. Be sure it is the kind of course you want... in which you are really interested... and the kind of work you can do.

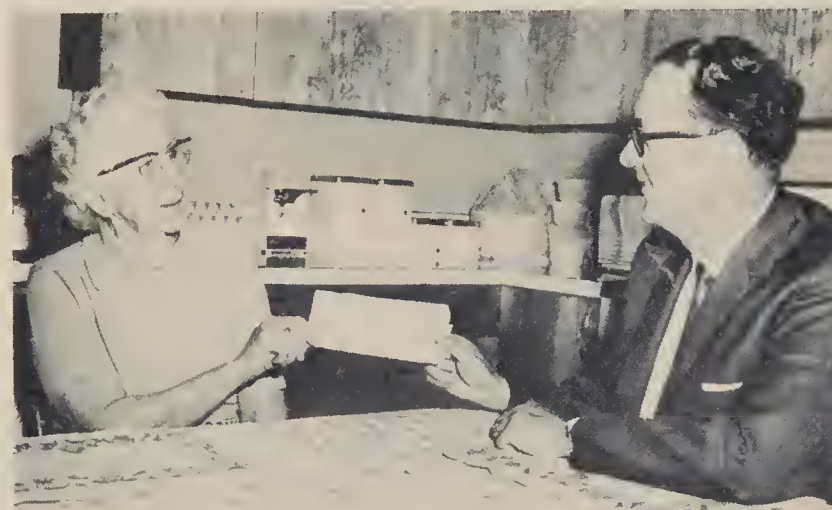
Many schools have placement

Hospital and Home Recuperating
Income Policy Makes The Difference

Within a few miles of each other agent Harry Ennis of Horseheads, N.Y., delivered two claim payments. One for \$4147.18 the other for \$3480.74. Of the \$7627.92 total paid the new Hospital and Home Recuperating Policy paid \$4014.38. Yes, this policy does make the difference.



Walter Brown, Barton, N.Y. spent six weeks in the hospital after an auto accident. Trying to avoid hitting a deer he swerved his car on a curve, caught the anchored end of the guard rail cable, became air borne, then came to a sudden stop into a tree. He suffered fractured ribs, ankle, vertebra and jaw also severely bruised lung. His hospital-home income policy paid \$1800, his other N. A. policies paid \$1297.18 in medical expenses and \$1050 in additional income. Total paid was \$4147.18.



Mrs. Clara Atchison, Barton, N.Y. took out N. A. policies for her grandson, Frederick Depew who has lived on the farm with her since a little boy. Returning home from an after school job Fred must have dozed off at the wheel, as he recalls only the sudden head on crash into a tree. He spent just over seven weeks hospitalized in a body cast and traction suffering from a broken thigh bone and a shattered jaw bone. The Hospital-Home Income policy paid \$2214.34. His other N. A. policies paid \$1051.40 medical expense benefits and \$225 extra income benefits. Total paid was \$3480.74.

OTHER BENEFITS PAID

Ellsworth Davis, Cuba, N.Y.	\$1581.76	Edna I. Everingham, LaFayette, N.Y.	\$ 164.28
Tractor hit by truck—mult. injuries		Fell in kitchen—broke wrist	
Joseph Chesna, Whitney Point, N.Y.	910.41	Maude Semans, Naples, N.Y.	415.00
Hit by hose boom—broke leg		Fell in trailer—broke hip	
Willis F. Smith, Jr., Salamanca, N.Y.	2678.60	Nellie E. Goldsmith, Lyndonville, N.Y.	531.92
Caught in silo unloader—crushed foot		Slipped on cellar stairs—inj. leg	
Gary R. Parker, Weedsport, N.Y.	736.74	William H. Willis, Mexico, N.Y.	267.99
Auto accident—facial injuries		Working on car—cut hand	
Lois Potmesil, Forestville, N.Y.	1822.84	Cleason A. Hickling, Garrettsville, N.Y.	640.00
Horse reared—broke pelvis		Ladder slipped—cut scalp	
Roberta Young, Bainbridge, N.Y.	246.20	June McCoy, Heuvelton, N.Y.	1372.84
Auto accident—inj. head, neck		Fell off chair—broke collarbone	
John L. Coupal, Sr., Plattsburgh, N.Y.	180.00	Elsie Willoughby, Sharon Springs, N.Y.	1150.00
Fell off school bus—inj. ankle		Tripped on step—broke thigh	
Kenneth Allen, Harford, N.Y.	547.28	Evelyn Smith, Watkins Glen, N.Y.	686.36
Unloading corn—broke ribs		Slipped and fell—inj. shoulder	
Ethel Zimmerman, Oavenport, N.Y.	218.55	Irving Gable, Romulus, N.Y.	158.34
Auto accident—inj. leg		Using saw—cut thumb	
Joseph Telaak, Hamburg, N.Y.	1332.71	Philip Bennett, Hornell, N.Y.	3040.00
Auto accident—mult. injuries		Caught in corn picker—loss rt. forearm	
Wayne R. Scott, Constable, N.Y.	302.70	M. Kenneth Towne, Sodus, N.Y.	442.88
Ran over by sled—broke foot		Dropped running saw—cut leg	
Nelle Sands, Bergen, N.Y.	935.71	Roger Daley, Bliss, N.Y.	1955.03
Auto accident—broke toe, inj. knee		Pushed by cow—inj. back	
Burham J. Warner, Little Falls, N.Y.	350.00	Elden W. Paddock, Branchport, N.Y.	2210.00
Knocked down by cow—inj. head		Caught in beaters—loss of hand	
Glenn C. Porter, Watertown, N.Y.	249.29	Richard B. Reagan, Athens, Pa.	467.12
Stone thrown by mower—cut leg		Riding hay bine—broke wrist	
Raymond Larkins, Lowville, N.Y.	1259.60	Tony Fabrizio, Newfield, N.J.	173.55
Knocked down by heifer—broke hand		Fell off truck—tore bicep muscle	
Millicent Smith, Eaton, N.Y.	386.47	Peter Capelli, III, Vincetown, N.J.	1050.00
Hit coal bucket—inj. leg		Carrying pipe tripped—inj. leg	
Mary Antes, Webster, N.Y.	265.00	Frederick Kelley, Ashfield, Mass.	887.04
Slipped mowing lawn—broke ankle		Fell from ladder—internal injury	
Priscilla A. Hazzard, Fort Plain, N.Y.	613.50	Everett Stevens, Springfield, Vt.	695.40
Missed step & fell—broke ankle		Loading cow on truck—broke shoulder	
Albert Korman, Boonville, N.Y.	192.84	James McBride, Vergennes, Vt.	191.00
Krimping hay—cut hand		Bale kicker released—cut tongue	

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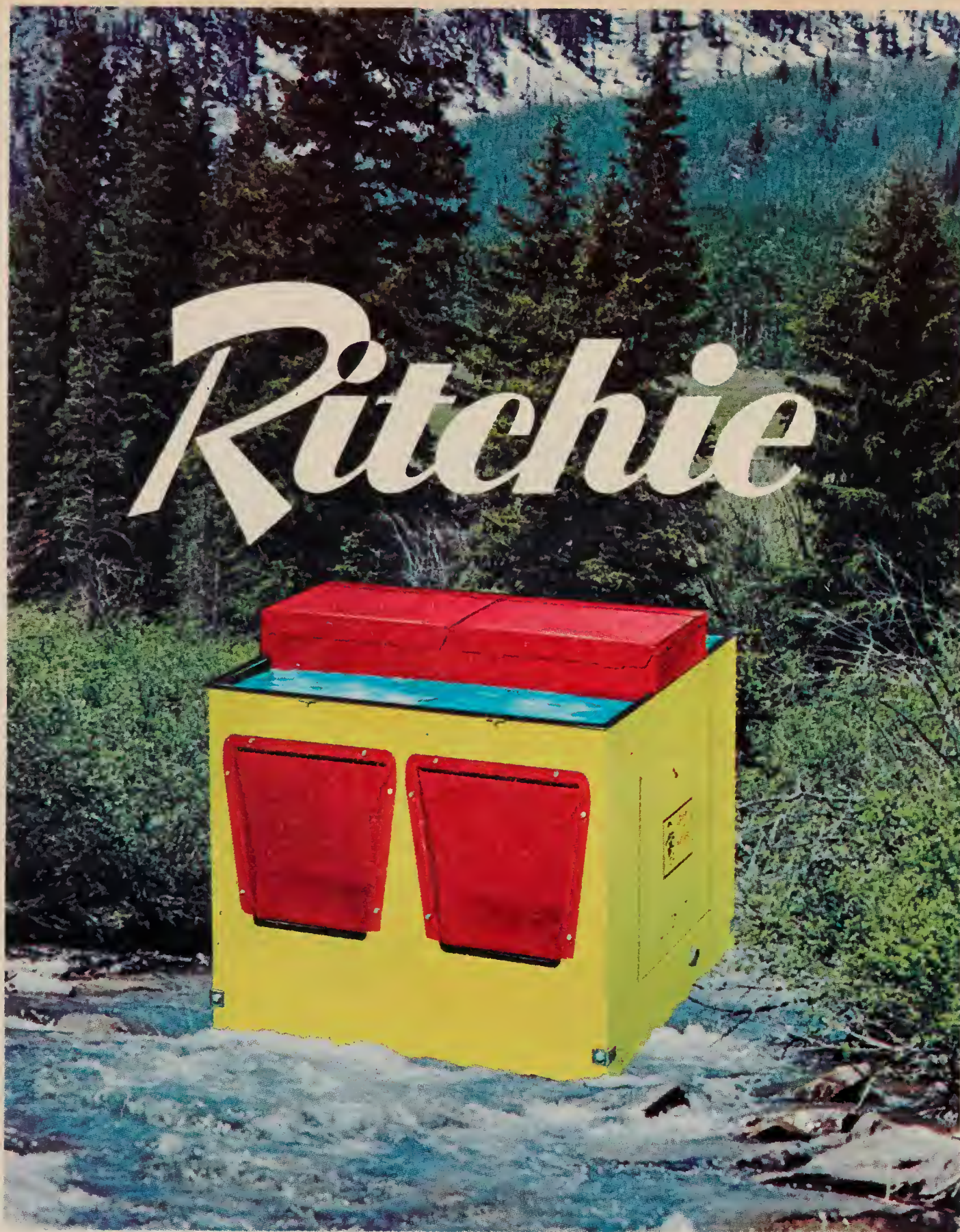
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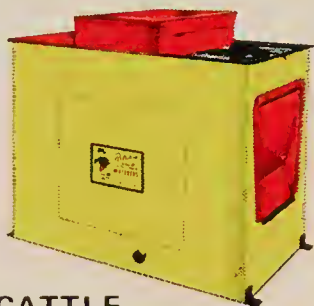
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PICKLED CORN

by Winston Way*

NORTHEASTERN farmers may expect a new method of grain corn storage to be available in the near future. Organic acids are already being used in neighboring Canada, and can be expected to make their impact here, perhaps in 1971.

Corn grain has traditionally been stored in cribs open to outside air to facilitate drying. They have been made of wood, metal or a combination of the two. Chief drawbacks to crib storage have been getting the grain dried to 20 percent moisture, where it is safe to put in a crib . . . and getting the grain ground before it can be fed.

In recent years, a new storage method has permitted the preservation of ground corn-cob meal in an airtight enclosure such as a concrete or metal silo. Moisture contents as high as 35 percent, which would cause spoilage in cribs, can be handled in this system. High-moisture corn storage protects corn by a process of fermentation similar to that of making corn ensilage.

Third Method

Organic acids, both propionic and acetic, now afford a third method of preserving corn. The grain needs only to be picked, shelled, coated with acid and then piled in any convenient place undercover. A toolshed or barn floor will do.

Organic acids applied to the grain as it moves through an auger conveyor reduce the pH to about 4.0 (makes the corn more acid). This prevents both mold and bacteria from growing, just as cucumbers are preserved when making pickles. Furthermore, these organic acids are useful food additives as far as cows are concerned.

When fed acid-preserved corn, cows make more milk per pound of corn fed, but production per cow does not necessarily increase. Both beef and swine made faster gains when fed acid-preserved corn.

Research

Research in England has proved the feasibility and practicability of using organic acids. Several Canadian firms are now licensed to sell the acids, and devices to apply them. It costs about \$5 per ton of grain treated, depending on its moisture content. Applicators are either purchased or rented.

Propionic acid appears better suited to the purpose than acetic acid. Both are heavier than air, and gradually volatilize so that odors disappear soon after application. A few simple precautions . . . like wearing gloves and protective glasses . . . are advised.

While not toxic, the acids and their fumes are very irritating to eyes, skin and lungs. One commercial product is pure propionic, another is a mixture of the two acids. It takes about 2 to 4 gallons to treat one ton of grain.

Corn for grain, while an attractive possibility every year, could become especially profitable for the next two years.

*Extension Agronomist, University of Vermont.

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For The
***Northeast
Farmer***

JULY 1971

American Agriculturist
and the
RURAL NEW YORKER

EDITORIALS

by GORDON CONKLIN



THE BIRDS THAT WENT OVERBOARD

It has been discovered that social problems are not unique to man. Evidence of this has been uncovered by research carried out by the noted bird sociologist Professor Twitter N. Tweeter.

Professor Tweeter has found that birds respond to an Affluent Society in a very similar fashion to humans. For his research, he worked with three generations of woodwhackers.

The first generation of woodwhackers were hard-working, mated for life, and kept their nests squeaky-clean. The males rose with the sun to begin a long day of hunting birdseed, while the females sang cheerily as they went about their housework. Both diligently trained their young in the importance of working hard, so it could be possible to stay in Florida for increasingly long periods.

When the second generation came along, Dr. Tweeter began to provide some of the good things of life so important to them . . . far more birdseed than could be consumed each day, and a bit of gin at suppertime. The well-supplied young woodwhackers now began to complain about how hot Florida is in summer, and how cold in winter. To avoid the rigors of making the long flight to warmer climes twice a year, the woodwhackers hired huge bat-winged herons to carry them to Miami . . . in return for a promise to eventually pay in installments of birdseed expected from Dr. Tweeter.

When the third generation of woodwhackers arrived, the professor raised the society's level of affluence still further. As this generation grew, its members began to refuse to rise at dawn . . . or at any other regular hour. They sharply criticized their elders for preoccupation with such material matters as birdseed or nest-cleaning . . . adding that they should be thinking instead of such relevant matters as population control, and the reformation of woodwhackerkind.

Males and females of the second generation had already begun high-flying around with woodwhackers not their mates. Those of the third began setting up birdunes where all did their own thing . . . whenever they were not out in the fields picking loonweed for smoking.

Professor Tweeter had planned to observe a fourth generation of woodwhackers under conditions of even higher levels of affluence.

Alas! On the way to Miami, the bat-winged herons ran into heavy icing conditions . . . and they told the woodwhackers to get off and fly for themselves. But easy living had taken its toll of stamina; loonweed had confused their sense of purpose and direction.

There is no fourth generation to observe.

THE MAN WITH THE HOE

In our affluent society, we have developed enormous "people-pressures" in order to keep ahead of the Joneses. Time to get everything done has become the scarcest possession of all amidst the unrelenting struggle to be more efficient, to increase incomes, and to pile up material possessions that will most impress our neighbors.

As an antidote to this squirrel-cage complex that grips farmers and non-farmers alike, I heartily recommend the healing activity of gardening.

Plants are in tune with the rolling seasons . . . we recognize from the start that they cannot

be forced to mature more rapidly, as our children protest they are being forced. The soil from which the seedling springs conveys a timeless message of enduring certainties . . . calming our troubled spirits even as they are buffeted by ever-accelerating change in human society.

A garden has so much going for it . . . matchless eating quality for the table . . . a chance to slow down our headlong pace and gain some perspective . . . an opportunity to take part directly in the upward thrust of the process of life.

The modern gardener might be described far differently by Edward Markham than was the peasant of his famous poem. Markham might now write:

Humbled by the mysteries of life he leans
Upon his hoe and gazes on growing things
The sweat of cleansing toil upon his face
Delivered for a time from the burdens of
the world.

CROP DEMONSTRATIONS

For many years, county agents have used demonstration plots to help farmers learn of new methods for increasing crop yields. Part of the plot is usually subjected to a particular treatment, another part handled differently, and part left without treatment.

Wouldn't it be advisable to prepare some demonstration plots where our non-farm neighbors would also be exposed to the value of pesticides? For instance, a clearly-labeled plot could be located along a heavily-traveled highway . . . or at county and state fairs where people congregate. On some rows, chemicals would control weeds and insects . . . on others no chemicals would be used.

Those unfamiliar with farming would see the damage weeds and insects do if not controlled. They would see dramatic evidence of the lowered yields and quality that result without pesticides. Most consumers have only the vaguest notion of the realities of food production . . . and they have been lulled by a quarter-century of food surpluses in the U.S. The test plots would bring into focus the tremendous stake that consumers have in continuing the judicious use of pesticides for producing food and fiber.

LANDMARK LAW

An unusual bill was recently passed by the New York State Legislature. It was unusual not only because it contained some new concepts about protecting agricultural land . . . the really amazing thing was that it passed in both the Assembly and Senate without a dissenting vote! (More details of the law on page 14).

Remember that New York State is a strong agricultural area . . . ranking 15th among the 50 states in terms of dollar volume of farm output. However, remember also that its electorate is overwhelmingly non-farm; less than one percent of its voters could be classified as commercial farmers.

How, then, could a law designed to protect agricultural lands be so unanimously accepted? The answer is simple . . . its proponents recognized that interest in environmental improvement is a powerful political force.

Sure, the new law will help to maintain the enormous dollar impact of agriculture on the economy of the State . . . but the maintenance of attractive (and taxpaying) open space is even

dearer to the hearts of non-farmers. For copies of this law, write: William Bensley, Building 8, State Campus, Albany, New York 12226.

Deserving major credit for shepherding this landmark legislation to passage are Senator Ted Day, and Assemblymen Frank Walkley and Benjamin Gilman. It was a "Program Bill" backed by Governor Rockefeller . . . the specific wording being developed by his staff. Russell Billings, chairman of the Agricultural Resources Commission . . . and Professor Howard Conklin, advisor to the Commission . . . played major roles in its initiation.

This is an example of enlightened leadership taking advantage of the surging environmental interest that some farmers see only as a stumbling block. There are other political objectives of farmers that might be attained by appealing to voters in the interests of ecological quality.

One is the goal of managed scarcity of food supply . . . a necessity to really effective bargaining by farmers for substantially higher farm prices. I think farm leadership can sell non-farmers on the concept of food scarcity on behalf of environmental quality . . . but never on the basis of "adequate" farm incomes. A recent study at Iowa State predicted sharp increases in U.S. farm income if fertilizer usage was sharply curtailed or if pesticide use was forbidden . . . each making a massive reduction in the food supply.

Just how to bring about a throttle-back on food production that would be acceptable to producers is, of course, the unanswered question. But the political and social climate is right for making the attempt!

BELIEF IN THINGS UNSEEN

A recent letter from a reader contained a thoughtful comment that went, "In this life, we find life's path through faith. We keep on the path through hope."

Across the years, it has been my privilege to have visited the farms and homes of thousands of northeastern families. At every one, some manifestation of faith and hope was apparent . . . perhaps an awareness of a dependable Supreme Power beyond man . . . or a flicker of anticipation for a better tomorrow, no matter how dismal today might be . . . sometimes just the revelation of plans for the future of the business, or a son's career.

The cynics may scoff at the "weakness and softness" of hope and faith . . . as contrasted to what they call the "hard realities of an uncaring world, and the effectiveness of force." But the reality is that hope and faith are the strongest and most durable of human characteristics.

They have teamed up to inspire ordinary men and women to do some extraordinary things that live on in the pages of history. Perhaps even more important, hope and faith have sustained millions of folks like you and your neighbors to live unspectacular . . . but effective . . . lives.

We have too long been focusing our attention on mistrust, cynicism, hatred and everything that is negative. If this continues, the spiritual mortar that holds the people of these United States together will crumble, and . . . because vacuums cannot last long . . . somebody will put us back together with very different kinds of bonds than the bonds of faith that make a free republic possible!

THAT REMINDS ME . . .

The women's lib movement got more than a bit rowdy in a small northeastern city . . . and a couple of gals got tossed in the jug by the police.

The older woman of the two had been inside the hoosegow before, but it was a new experience for the younger one. The young gal began sobbing loudly . . . and from the adjoining cell the veteran protester called, "Don't cry! Put your trust in God. She will protect you!"

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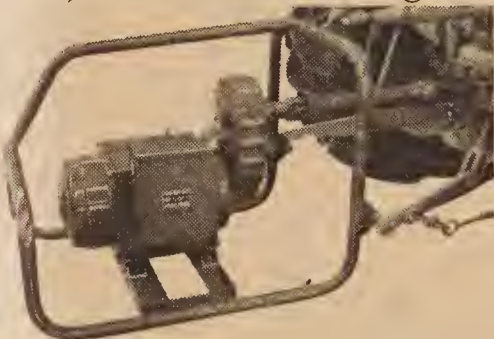
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Augusta Chapman Home Editor
Mary Craig Assistant to Editor
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OUR COVER

This waterfall can be seen from a country road running north from Sunderland to Montague, Massachusetts . . . along the east bank of the Connecticut River. Photo: Herbert Shumway.

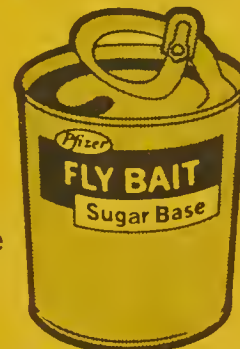


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MORE FOR GROWTH AND HEALTH



VISITORS AND PRIVIES

by Amos Kirby
New Jersey Editor

A State Supreme Court decision, and a new law recently passed, create concern for most growers.

The Supreme Court has ruled that visitors (reporters, government officials, and representatives of agencies funded by the public) must be admitted to farms, and the Legislature has sent to the Governor a bill requiring that the privy must return to the farm where seasonal workers are employed.

The actual effect on the grower will largely be a matter of how the visitor ruling is interpreted, and the field-toilet rules developed. Much will depend on how the word "reasonable" is interpreted as to distance in the field to the mobile or permanent toilets. Actually, there are few instances where it will apply to 1971 farm operations.

Visitors

The court decision that growers cannot prevent certain visitors from coming on private property has one redeeming feature. These representatives cannot legally interfere with the workers while they are engaged in productive projects.

According to C. H. Fields of the N.J. Farm Bureau, the issue simmers down to an interpretation of the terms "visitors" and "trespassers." This ruling is most important. The worker has a right to have any visitor of his choice at his living quarters.

While granting recognized groups and the press the right to enter a property, the court has also recognized the rights of the growers... actually, the ruling does not change the present system to any great extent.

These two issues have been given serious consideration. As they now stand, it is going to be possible for growers to live with both the Supreme Court decision and the action of the Legislature.

GYPSY MOTH

The gypsy moth has established itself in every New Jersey county. In the northern portion of the State, there will be a repeat of 1970, with damage likely to reach disastrous levels. Chemical and biological control measures are being taken to reduce the moth population and lower the damage to trees.

PEACH OVERCOATS

A winter overcoat of whitewash may be the most successful method to reduce winter killing of peach trees. In the winter of 1970-71, South Jersey had two periods of high temperatures that started the sap to flow. These were followed by near-zero temperatures that froze and cracked the bark in much the same manner as water freezing in a pipe.

Whitewash applied to the

southerly side of the trunk reflects the sunlight and in turn holds down the trunk-temperature. If the limited number of trees that have been whitewashed come through with a normal crop, and show no winter-kill injury, an intensive program for widespread use of whitewashing will be recommended.

PLANTED EARLY

New Jersey corn growers have taken all necessary steps to avoid damage from corn blight. The two fundamentals were to plant blight-resistant varieties, and early planting.

There are signs that the blight may not be much of a problem in 1971.

POWER SAWS

Careless handling of power saws in trimming peach trees has caused injury that provides an easy way for canker and borers to gain entrance.

The injury is caused... not by the power saw improperly doing its work... but by the saw striking other limbs, leaving open wounds.

OPEN HOUSE

Eight dairy farms in eight counties participated in June Dairy Month by opening up their farms to visitors. The event was observed on June 20 on the cooperating farms.

Those participating were: Havendale Farm (William Raab), Sussex; Irving Winner Farm, Mt. Holly; Pinyhill Farm (Richard Sylstra), Washington; William Facey Farm, Yardville; Kanach Farm (Jerry Kanach), Ringoes; Scott Farms (Allen Andrews), Long Valley; Cream Valley Dairies (Ed Flitcraft), Woodstown; Alvin String, Jr., Harrisonville.

CATFISH FARMING

Percy Fogg, Salem County, is a pioneer in the commercial production of catfish. This is probably the first venture of its kind in the State, and involves an initial planting of 1,000 fingerling-sized fish.

These are the channel catfish... entirely different from the mud catfish found in many areas. South Jersey has thousands of acres of streams where catfish may be grown.

REPLACES POTATOES

One of the big changes in farming in the Garden State has been the production of sod on land that formerly was largely devoted to growing white potatoes.

A survey recently completed by the New Jersey Department of Agriculture reports that more than 5,000 acres are now devoted to sod production. The product is used to create instant lawns for homeowners and housing developers.

In 1965, the land devoted to sod production in New Jersey was about 3,000 acres.

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New! 3-row Superpicker!

Now joins the **New Idea** family of famous 1- and 2-row pickers

Individual first elevators.

A bold step toward bigger capacity. Each elevator has its own beater, its own clearing rolls. So the ears, and not the trash, are moved quickly onto the husking bed at three different locations.

Big capacity husking bed.

Three-section husking bed has 312 rubber Flexi-fingers on powered presser wheels to align ears and keep them moving.

Famous Superpicker snapping rolls

(not stripper plates) quickly move ears off the rolls and onto the first elevators. And because there are no stripper plates, you get clean corn with fewer stalks, less trash.



Long tapered floating points

hinged above the gathering chains follow the contour of the ground to get under down stalks.

And those are just the high spots. This big new narrow row Superpicker is loaded with features—long, covered wagon elevator. 3 gathering chains per row. A corn saver that really works. An extra large cleaning fan. Big wheels and tires for increased flotation and reduced side draft.

But most of all, it's pure Superpicker. Backed by New Idea's full year warranty. Take a look at it soon.

Pick Superpicker.



2-row pull Superpicker, wide or narrow rows, optional shelling cage or field grinder.



2-row mounted Superpicker, optional cage-type sheller, or hopper elevator for snapped corn.



1-row Superpicker—famous for non-stop performance. Also 1-row snapper.



Coldwater, Ohio 45828

CAN DO machines from the CAN DO people.

HONORS CHITTENDEN

Stanley N. Chittenden, owner of Fair Weather Farms, New Lebanon, New York, has been awarded the 1971 Distinguished Service Award of the American Jersey Cattle Club. The award for outstanding service to the Jersey breed is given annually to only one individual.

Chittenden, who is currently vice president of World Jersey Bureau Federation, has served as director and president of Jersey breed organizations at local, state



and national levels.

The Fair Weather Farms herd consists of more than 500 registered Jerseys and is listed annually among the top-producing Jersey herds in the nation.

HELP FOR THE BLIND

The newly-formed Harvard Agricultural and Rural Group for the Blind, as its name indicates, plans to help the blind by providing job opportunities for some of 50,000 sightless persons living in rural areas.

The non-profit group has obtained land at Harvard, Delaware County, New York, and plans to provide an extensive agricultural program, including a roadside stand.

Later on . . . as money, equipment

and constructive ideas become available . . . the group intends to expand the program to include engine repair, upholstering, ceramics, piano tuning, and many other skills.

First priority for purchase is a small house trailer or motor home which can be driven to nearby areas for instruction to pupils in braille, typing and daily living skills.

To find out what you can do to help, write to : John Hordines, 212 Pennyfield Avenue, Bronx, New York 10465.

CENTRAL TESTING

A unique service for Pennsylvania DHIA members is the newly-dedicated milk testing laboratory at Penn State, where automatic equip-

ment is used to test 200,000 milk samples per month from cows enrolled in the state's DHIA program. Five automatic milk-o-testers record the butterfat percentages of 900 samples per hour.

Test results are used to maintain production records for DHIA members using the service. Results and testing procedures are available to faculty members for research and educational purposes.

The program is paid from fees collected from services offered by DHIA. The Association and the College of Agriculture maintain the facilities.

ROUGHAGE WRANGLE

Bill Lashbrook, director of dairy and livestock research at the Beacon Milling Company at Cayuga, New York, reports these possible problems associated with the feeding of corn silage as the only roughage to dairy cattle:

1. Overconditioning cows late in lactation . . . in turn associated with ketosis, and conception problems.

2. Corn grown on the same field year after year shows a reduction in iron content . . . creating anemia and "silent heats."

3. The rumen becomes more flaccid when handling only corn silage . . . displaced abomasum is sometimes a result.

4. Low butterfat tests have sometimes accompanied no-hay rations.

Bill believes that good cows will stay in the herd longer if some hay or haylage is fed. He suggests:

1. Feed at least 5 pounds of hay . . . or 15 pounds of haylage . . . per cow per day throughout the lactation.

2. Split the herd into two groups . . . feed corn silage to heavy milkers, and feed hay fairly liberally to tail-enders and dry cows.

3. Make sure grain ration is adequate in protein and is well supplied with minerals and vitamins.

4. Reduce grain-feeding levels sharply toward the end of lactation.

1971 FAIR DATES

NEW JERSEY

Great Monmouth Fair, Freehold Raceway	June 28-July 4
Cumberland County Fair, Millville	July 12-18
Cape May County 4-H Fair, Cape May Court House	July 15-17
Bergen County 4-H Fair, Paramus	July 16-18
Burlington County Farm Fair, Lumberton	July 22-24
Ocean County Fair, Lakewood	July 27-29
Gloucester County 4-H Fair, Mullica Hill	July 30-31
Middlesex County Fair, East Brunswick	Aug. 3-7
Salem County Fair, Cowtown	Aug. 4-7
Camden County 4-H Fair, Cherry Hill	Aug. 5-7
Passaic County 4-H Fair, Wayne	Aug. 5-7
Sussex County Farm and Horse Show, Branchville	Aug. 9-14
Atlantic County 4-H Fair, Egg Harbor	Aug. 12-15
Mercer County 4-H and Farmers' Show, Trenton	Aug. 13-14
Somerset County 4-H Fair, Somerville	Aug. 18-20
Warren County Farmers' Fair, Harmony	Aug. 18-21
Essex County 4-H Fair, Roseland	Aug. 20-21
Flemington Fair	Aug. 31-Sept. 6
New Jersey State Fair, Trenton	Sept. 10-19

American Agriculturist, July, 1971

GIVE 'EM THE NEW ONE-TWO PUNCH!

A new combination of two broad-spectrum insecticides, Thiodan and Pyrenone, really socks it to vegetable insect pests.

If the Thiodan doesn't get them, the Pyrenone will. No insect has been found to be Pyrenone-resistant.

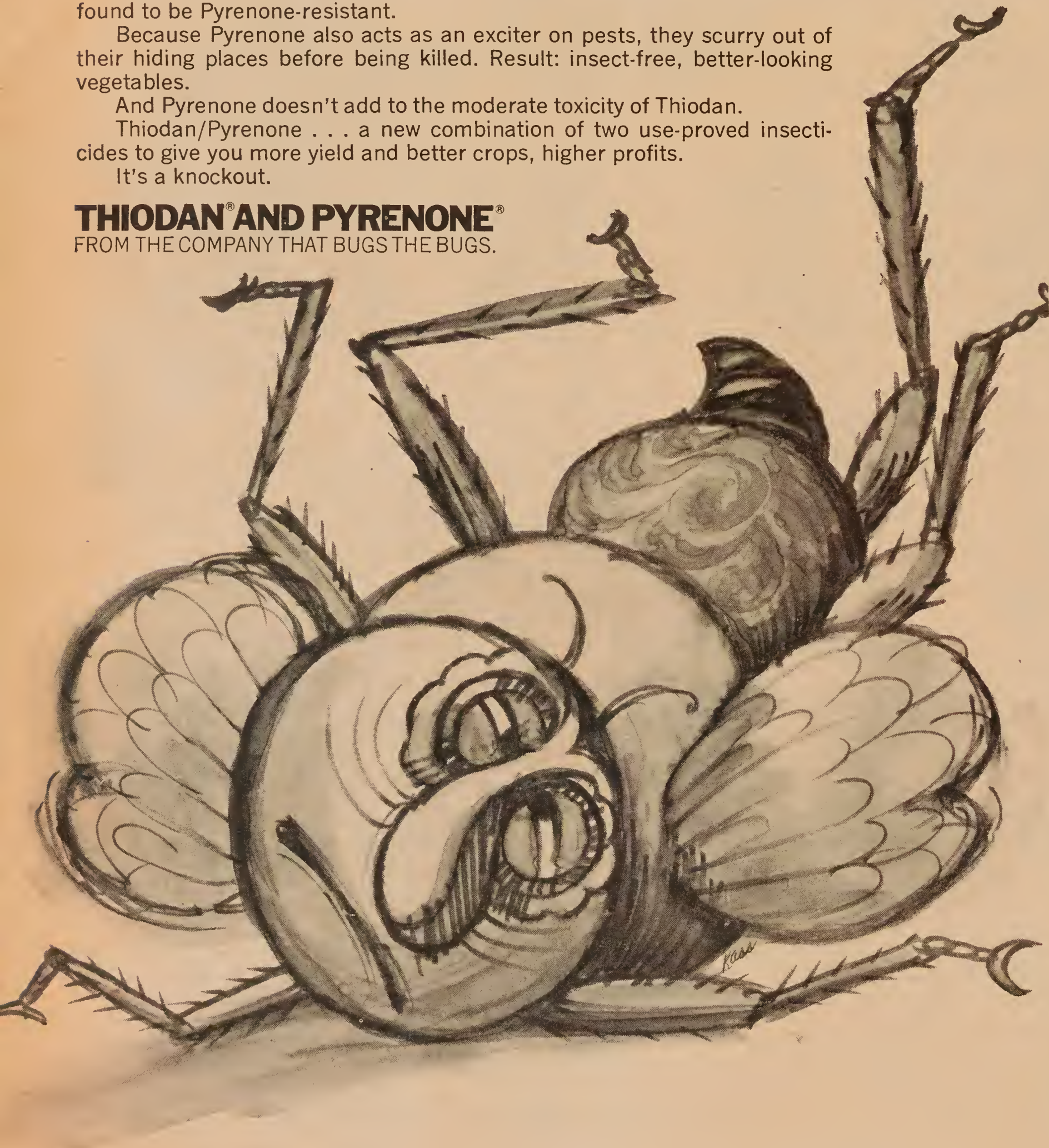
Because Pyrenone also acts as an exciter on pests, they scurry out of their hiding places before being killed. Result: insect-free, better-looking vegetables.

And Pyrenone doesn't add to the moderate toxicity of Thiodan.

Thiodan/Pyrenone . . . a new combination of two use-proved insecticides to give you more yield and better crops, higher profits.

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FROM THE COMPANY THAT BUGS THE BUGS.



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Middleport, New York 14105
Thiodan® is a registered trademark of Canadian Hoechst, Ltd.

Dates to Remember

July 4 - Independence Day

July 7-11 - International Apple Institute, Lodge of the Four Seasons, Lake Ozark, Mo.

July 11 - New York Swine Improvement Cooperative Field Day, Fairgrounds, Waterloo, N.Y.

July 11 - New York State Yorkshire Club Meeting, Fairgrounds, Waterloo, N.Y.

July 16 - Feeder Pig Sale, Caledonia, N.Y.

July 16 - Vegetable Open House, Cornell University, Ithaca, N.Y.

July 16-17 - Craft Fair, sponsored by Northern New York Agricultural Historical Society, Agricultural Museum, Rt. 180, Stone Mills, N.Y.

July 17 - Vermont Angus Association Field Day, Onion River Angus, Inc., Williston, Vt.

July 25-31 - National Farm Safety Week

July 30-Aug. 1 - Annual Reunion, Pioneer Gas Engine Association, 4 mi N. of Newark on Rt. 88, Fairville, N.Y.

July 31 - Annual Maine State Dairy Day, Fairgrounds, Windsor, Maine

July 31 - Hereford Association Summer Field Day, Crowfields, Bedford Village, N.Y.

Aug. 1-4 - Annual Agribusiness Conference American Institute of Cooperation, Colorado State University, Fort Collins, Colo.

Aug. 10-12 - Empire Farm Days, John Haplin & Son Farm, S. of Henrietta, Monroe County, N.Y.

Aug. 12-15 - Annual Pageant of Steam, Canandaigua, N.Y.

Aug. 15-18 - 26th Annual Meeting Soil Conservation Society of America, Sheraton-Columbus Hotel, Columbus, Ohio

Aug. 15-18 - Meeting North Atlantic Region, American Society Agricultural Engineers, University of Guelph, Guelph, Ontario, Can.

Aug. 15-20 - Joint Meeting American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, New York City.

Aug. 19-20 - Annual Meeting National Live Stock and Meat Board, Christopher Inn, Columbus, Ohio

Aug. 20-21 - Lumberjack Round-up, Killington, Vt.

Aug. 20-28 - Erie County Fair, Hamburg, N.Y.

Aug. 29-Sept. 1 - 25th Annual Meeting National Association Animal Breeders, Neil House, Columbus, Ohio

Aug. 31-Sept. 2 - Agricultural Progress Field Days and State Plowing Contest, Rock Springs Agricultural Research Center, Rt. 45, Pine Grove Mills, Pa.

Aug. 31-Sept. 9 - New York State Fair, Syracuse, N.Y.

EMPIRE FARM DAYS

August 10, 11, 12

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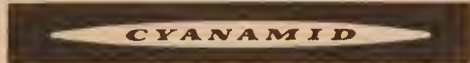
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What's NEW in the FIELD

by W. D. Pardee^{*}

A LOOK AHEAD

EVERY once in a while it's good to look out in the research plots to see what's coming down the pike for us in the future. There are many new ideas kicking around in Northeast experiment stations, some of which won't work, others that should pay off big. For the fun of it, here are a few new ideas that I find interesting:

Blight watch—New York scientists and extension workers will be watching corn through high-altitude photography to note presence and progress of leaf blight. Modern photo techniques include black and white, color and infra-red photography as well as prints noting differences in heat emission by ground objects.

Theory is that diseased leaves radiate different heat levels than healthy leaves. Even newer techniques are being tested. High-altitude air flights will be correlated with ground checks to test these techniques as well as to measure blight development.

Oneida County Extension Agent, Dick Morse, and Cornell staff members are working with the SAC air force base at Rome, New York. Dick has test plots of resistant and susceptible hybrids which will be flown over frequently during the growing season. Dick has also pinpointed a number of corn fields on nearby farms with hybrids of both types.

Primary object is to check these techniques to see what's possible, but we'll also be watching for disease development. While the boys on high are snapping photos, we'll be noting what's really happening on the ground to compare with their photos.

We're hoping we don't have any southern leaf blight to spot, and that we don't have the disease in New York this year. If so, we'll check for yellow leaf blight infection.

In any case, we should be able to see how one or the other of these look from 10,000 feet. Last year, several trial runs over Indiana by this same air force team suggested it can work. We'll know lots more by fall.

NASA planes in the Midwest will be testing some of the same techniques. Result comparisons should tell us whether this can be effective in plotting disease advance and permit early warning to help time spray operations.

Along the same line, soil classification specialists from the SCS and from Cornell are working with the same airmen to determine whether high-altitude photography can help map soils. Soil types differ in reflective temperature, in wavelength of reflected light, in color, and other factors which can be picked up by various sensing techniques. If effective,

this could be an excellent tool to replace part of the immensely time-consuming job of ground sampling to pinpoint soil types.

High digestibility corn silage is a goal of Cornell Plant Breeders C. O. Grogan and Ken Sayre. Working closely with livestock specialists, these corn breeders have taken the corn plant apart to note digestibility of various portions. Some interesting facts emerge. First off, as you might guess, grain is the most digestible part and remains that way through the life of the corn plant. The biggest change in the plant is the increasing amount of the total plant weight made up by grain as the plant matures.

The digestibility of the whole plant stays relatively constant through the season. The added digestibility in grain replaces the dropping digestibility in stalk, husks, cobs, and leaves. Yield of digestible nutrients, of course, goes up through the season, so it pays to harvest silage at the dent stage or beyond.

Sayre finds that cobs, husks, and stalks vary in digestibility from hybrid to hybrid. He believes we can tailor-make silage hybrids to have high grain content **plus** high digestibility in husks, cobs, stalks and leaves.

Plant breeders are presently pinpointing the digestibility of each of these fractions of the corn plant. They hope to handle several thousand samples during the coming years.

Cold hardiness is another factor corn breeders are checking closely. Late springs or cold May weather frequently hold back corn germination and can thin your stand. Late frosts may also set back corn seedlings.

Cornell plant breeders have found important inherited differences between lines in ability to germinate in cold silos, to grow in cool weather, and even to live through mild frosts. Grogan and company are now investigating means of adding these characteristics to future hybrids to help you plant early with less risk of cold or frost damage.

More Protein

High-protein wheat for livestock feed is a goal of Neal Jensen, Plant Breeder, New York State College of Agriculture at Cornell. Long a successful breeder of milling wheats . . . and the developer of such popular varieties as Genesee, Avon and Yorkstar . . . Jensen notes that present varieties are low in protein, bred that way on purpose, since millers desire low protein for pastry, cookies, shredded wheat and similar products.

Yet with recent prices at feed
(Continued on next page)

American Agriculturist, July, 1971

American Agriculturist

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grain levels, much northeastern wheat finds its way into feed mixes. Low-protein wheats, first-rate for milling purposes, suffer in comparison with western wheats when converted to feed.

Recent protein assays on a number of breeding lines show potential protein percentages as high as 17 percent. This compares with about 10.5 percent in Yorkstar, New York's most popular variety. Jensen believes that as a short-term goal, a variety with 15 percent protein is a real possibility. This would help dairy-men cut their costs for protein supplement.

But high-protein feed wheat could mean trouble to millers and eventually to farmers in distinguishing it if it got mixed with low-protein grain for milling. Jensen notes the possibility of adding color genes, to mark high-protein lines. Color possibilities include red, blue, even purple, to help farmers and millers distinguish the two and avoid mixing.

High-protein lines are under development, but are still several years away. For the short term, we are testing moderately high-protein lines in red wheats that may give a small boost in protein and that may fit into areas of the Northeast not now growing wheat. We'll report more on this later when we see how some of these perform this year.

Good Vetch

Crownvetch is an interesting species finding new attention from several researchers, with special focus being placed on it by Penn State. No relation to hairy or common vetch, this species is in widespread use to control erosion on roadbanks in Pennsylvania and several other states. A sturdy competitor, it develops lush growth that crowds out weeds and grasses and effectively eliminates erosion, while providing attractive ground cover that doesn't require mowing or spraying.

Recent interest has focused on the potential of crownvetch as a pasture plant. Grazing and feeding trials suggest that crownvetch is high in palatability and digestibility. It appears to have few pests and it holds leaf quality well into July.

The ability of crownvetch to take over and persist could make it an excellent pasture plant where it is adapted. It probably has less potential for hay, since the long stems inter-twine to make a dense mat of forage that would be hard to handle with machinery.

At present, several factors limit crownvetch use on farms. It resembles alfalfa in its need for a high pH and for good drainage, but so far it has been well below alfalfa in yield. Crownvetch will not do well on low-pH hill soils, or on soils where drainage is poor.

In the past, seed prices usually put crownvetch beyond the practical reach of farmers interested in pasture species. However, recent bumper seed crops have led to reduced prices. Seed costs are still high compared with alfalfa, but they're now within reason.

If you have banks or steep slopes where you would like to control erosion, it may pay you to take a look at crownvetch. Soil test and fertilize with phosphorus and potash

as you would for alfalfa. Lime to a pH of 6.5 or better.

Prepare a good seed bed and sow in the spring at 10 lbs. per acre. If the ground slopes severely, sow a thin stand of oats to hold the soil from washing during the seeding year. Control weeds by clipping or grazing. Eptam does well experimentally, but doesn't have label clearance for crownvetch.

If you're interested in crownvetch, start with a small acreage. Try it out and see how it works for you and get to know the crop before you go into it in a big way.

Crownvetch starts slowly and will not show much growth the first year. By the second year it'll begin to take over, and if conditions are right, you'll soon have a solid stand.

LOTS OF CORN

There's no question about it, the grain corn acreage in the northeastern states will be up considerably this year. Just how much, we don't know for sure, and won't be clear until USDA reports come out. Guesses range from 10 to 50 percent, depending on the locality.

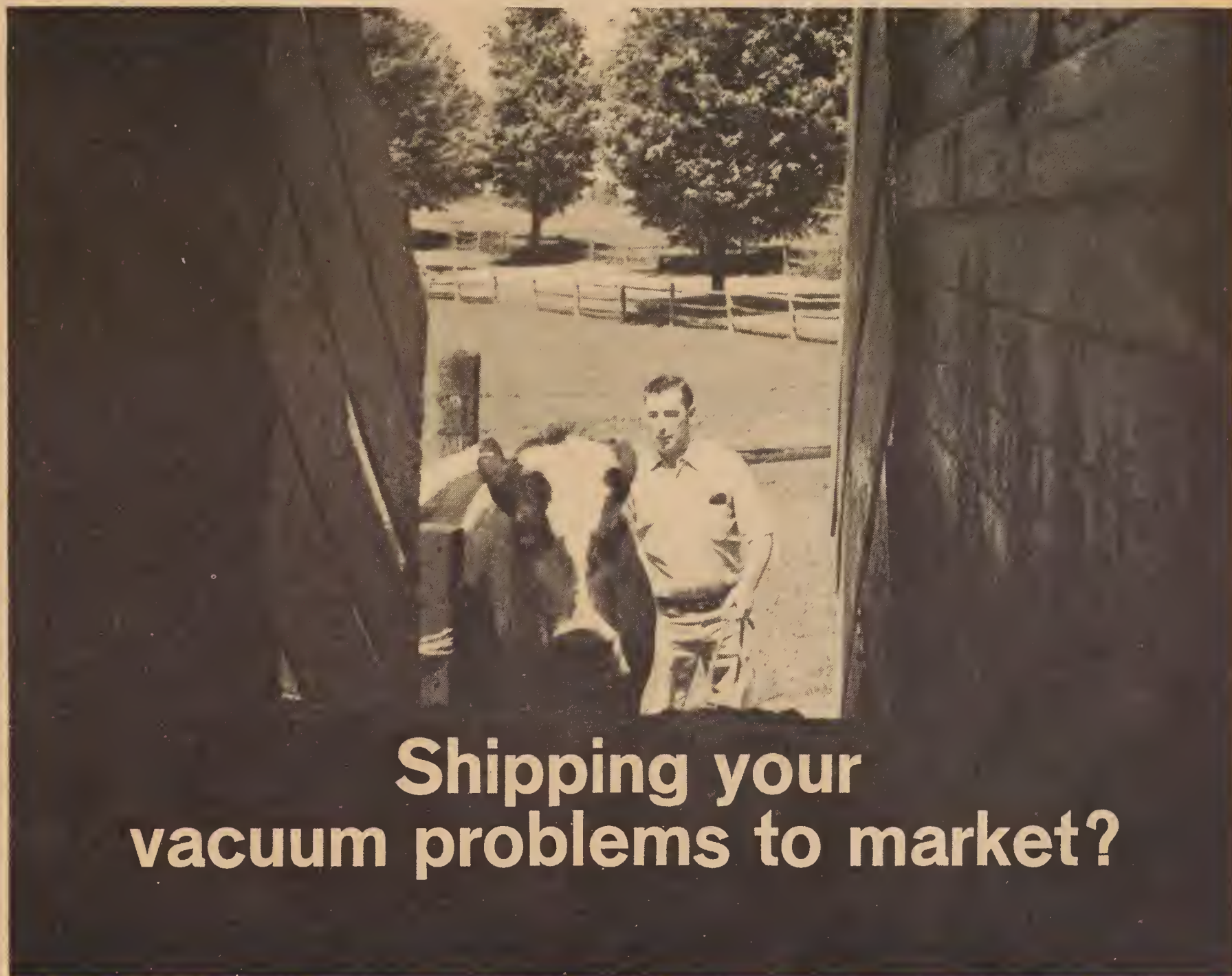
This can have important implications for you. A big crop will put heavy pressure on commercial drying, handling, and storage facilities. Many northeastern markets aren't adapted to handling large volumes of corn, some will undoubtedly get plugged come fall. Where this happens, local prices may drop substantially at harvest. Drying and storage facilities will be excellent insurance and should pay.

The best idea is to plan now how you'll market or store your corn this fall. The rush for driers, bins, and elevators will be tight in October and November. So you'll do well to plan ahead and beat the rush.

Before investing in expensive driers and bins, be sure to consider whether you plan to continue to grow as much corn as you have out this year. It won't pay to stock on expensive equipment for one year's crop.

For many, best choice may be high-moisture corn put up in oxygen-limiting silos. Lots of farmers have moved this way in recent years with good results.

Even if you're not growing grain corn, it may pay you to store some corn.



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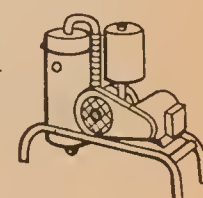
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Dollar Guide



SOUTHERN CORN LEAF BLIGHT is around in northern U.S., but on very limited scale. A few hot spots have resulted from shelling blight-infested corn on wet, windy days near growing corn ... spreading fungus spores.

Beware of unfounded rumors about a severe general infestation ... check with your county agent before taking any major step in response.

Three fungicides are cleared for spraying threatened cornfields ... Manzite 200 (DuPont), Dithane M-45 (Rohm & Haas), and Citcop 4E (Cities Service).

BIG BATTLE in the courts pits the NFO against three dairy cooperatives of the Midwest ... including Mid-America Dairymen and Associated Milk Producers. NFO seeks the dissolution of those cooperatives, plus \$125 million in damages.

BOSTON REGIONAL is the new name for federal milk marketing order Number 1, once called the Massachusetts-Rhode Island-New Hampshire order area. The change, effective July 1, also enlarges the area included under the order.

ERIE COUNTY FAIR at Hamburg, New York, is officially reported as largest such event in the U.S. (600,000 attended in 1970). Dates in 1971 are August 20 to 28.

EGG MARKET REPORTS by USDA will change on July 6. At Chicago, the wholesale daily report will be replaced by twice-a-week reports. Price range will be narrowed to eliminate extremes in reported prices.

At New York City, daily reports will continue, but range will also be narrowed. The "mostly" price report will be continued.

MAPLE SYRUP production in New England was lowest in any year since 1916. U.S. production in 1971 ... at 954,000 gallons ... is 14 percent below last year. Price per gallon, of course, trends upward.

FARMLAND VALUES continue to move up in Northeast ... by 7 percent in the region from March of 1970 to March, 1971. Connecticut up 10 percent ... Maine and New York by 8 percent. Average value of farm real estate (land and buildings) stands at \$383 per acre in Northeast. It's \$1,094 in New Jersey!

DAIRYMEN will find useful the new "Dairy Housing and Equipment Handbook," available for \$2 from: Midwest Plan Service, Iowa State University, Ames, Iowa 50010. Official handle is MWPS-7.

FROST PROTECTION is explained in depth by USDA bulletin #1588, entitled "Frost and the Prevention of Frost Damage." Order for 25 cents from: Superintendent of Documents, U.S. Printing Office, Washington, D.C. 20402.

LABOR INCOME averaged \$8,856 on 159 Vermont farms involved in Electronic Farm Accounting (ELFAC) in 1970. Average herd size was 59 cows.

HOT WEATHER depresses the appetite of laying hens. When feed consumption is off, a higher protein level in the feed is beneficial.

TRACTOR ACCIDENTS claim 1,000 lives every year in U.S.; 60 percent involve overturns. Doubling the tractor speed quadruples the chances of turning over!



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American Agriculturist, July, 1971



Doc Mettler Comments on:

EMERGENCY!

A FEW days ago, I overheard two young farmers talking about July weather. One of them said the thing he disliked about it most was the indecision. He explained that when he woke up early on a hot morning, he could never make up his mind whether to get up and get chores done before it got too hot... or sleep a while longer to get some rest while it was still cool. The result was that he would lie there worrying and got neither the rest, or the chores done!

Indecision often causes more problems than the results of a poor decision well carried out. This is especially true in emergencies such as injuries to animals.

First Aid

First aid to animals is not too different from first aid to humans... with one addition. With animals, you not only try to get the patient in a comfortable position without doing any more damage, but you try to restrain him so he does not injure himself further.

As an example, if a horse is down and tangled in harness or a fence, get on his head as quickly as possible. This is easier to demonstrate than to describe in print. Approaching from behind and, with one motion, put your knee on his neck just behind his ear and grab his halter (or grab him with your arm around where the nose piece goes) and pull his nose off the ground and back toward you.

A small person can hold a big horse down easily once he gets the knack. This will work on a cow too, but is more difficult, if the cow really fights. Normally, a cow will be still when she is cast.

Quiet

With either the cow or horse, don't shout or yell, just talk quietly to the animal. Warn others to stay away from the animal's feet but send someone for a wire cutter or other tools that are needed to free the animal.

Once the animal is free and in a comfortable position, try to stop the bleeding. Holes in the milk vein can cause a cow's death in a matter of minutes. Your hand can hold there for a short time until your veterinarian arrives to suture. However, if you can find... or have someone else find... a clip such as is used to hold a sheath of papers, this will hold the hole in the vein closed for quite some time.

Pressure bandages (packs held on by hand) are more often needed than a tourniquet. A clean handkerchief or wad of toweling... either paper or cloth... is usable. I should not have to mention it, but... even though they will stop bleeding... cobwebs should never be put on a wound. Even with our best antibiotics, the infection carried by these things can be worse than the loss of blood they stop.

Don't try to stop bleeding by washing away with cold (or warm) water. Just grab the cleanest absorbent thing you can and hold it on the wound. If you have a bandage handy, put it on over the pack and leave it there until your veterinarian arrives, or until bleeding stops.

If it stops, don't leave the animal unattended until a suture is put in, or hours have gone by. If you do have to use a tourniquet, loosen it for an instant every ten minutes or so.

Again, restraint is important to stop bleeding. I have seen cows bleed to death from a cut tail or ear because they just kept moving. A roll of bandage placed in an ear and bandaged around can stop a torn ear from bleeding. Tails, if tied to keep from switching, will often stop bleeding by themselves.

A bleeding nose in horse or cow can be a different thing to stop, often appearing to be worse than they are. Sometimes it is necessary to pack the nasal cavity with bandage... this would better be done by your veterinarian. Until he gets there, confining the animal with his head up in a normal position is often the best you can do.

No Powders

Severe bleeding cannot be stopped with powders, either flour or medicinal. These, like cobwebs, build up places for bacteria to grow. A torn wart that seeps blood for hours and will not stop can be helped by cauterization with a hot iron. An electric dehorner or soldering iron can be used for this purpose. Ordinarily, however, this type of heroic measure will cause more problems than good.

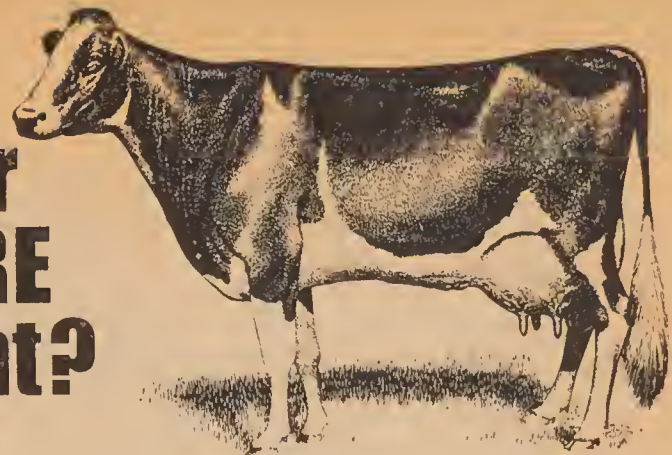
Next step after stopping the bleeding is to prevent infection. If the wound is bad enough to call your veterinarian, don't do anything until he has seen the wound. The healing oils, cautery powders, etc., of twenty years ago should never be put on a fresh wound until they are recommended by him.

One of the newer wound treatments I like for first aid, and later use on open wounds, is a yellow furacin aerosol spray. This spray is safe to use on most wounds, and will not cake up as the old "healing powders" did. This can also replace some of the healing oils once used. During fly time, a fly repellent made for wounds can also be obtained from your veterinarian. Use it and other medicines only as he suggests.

Wounds that penetrate a joint cavity used to be considered almost hopeless. Prompt treatment with antibiotics, and surgery by a veterinarian, can save most of them today. How good a nurse you are is just as important. The best veterinarian, doing the best he knows how, cannot do a good enough job on a wound to cover up later neglect on your part.

(Continued on page 13)

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ANSWERS NFO LETTER

Editor's note: In a recent issue, Mrs. Jean Steciak of Little Falls, New York, commented on action by NFO in northeastern milk bargaining. Following is a reply by Bruce Snow, public relations manager of Dairy Lea Cooperative.

I APPLAUD Mrs. Steciak's enthusiasm for collective bargaining by dairymen. She describes as a "major breakthrough" the opening of NFO's bulk reload station for milk at West Winfield, New York.

This station, says Mrs. Steciak, will be "for collective bargaining, not begging."

May I offer congratulations to NFO for its willingness to handle and move milk for its members. Dairy Lea, Northeast, and other dairy cooperatives in the Northeast have been doing it for many years.

By putting "a block of milk" on wheels, Mrs. Steciak says "NFO can and will move it from a low-priced into a higher-priced area..." This is rather vague, but I assume she hopes that the milk can be moved out of West Winfield into some other federal market area with a higher price (after paying hauling charges, of course).

Moving milk around within a given market order doesn't generally provide the type of benefits to which she is referring. In fact, no matter how you figure it, the farther you truck milk, the less likely it is that the handler (co-op, NFO, or dealer) is going to make money on it.

On Wheels

In any case, approximately 83 percent of all milk sold under Order 2 is already "on wheels" and most is marketed in "blocks" by co-ops that have been doing it for many years. This is not to disparage the new effort by NFO, but merely to point out that Mrs. Steciak's group is joining the bulk-marketing establishment.

Mrs. Steciak declares that "when individual farmers sign contracts or reach agreements on the prices for their products, these prices become the ceiling. When NFO members block their production together and sign contracts, these prices become the floor. The full effect of blocking this production together will be felt only when more and more farmers join the NFO and add their production to the block."

Some History

Some 63 years ago, a group of dairymen made exactly those same observations. They founded an organization they called the Dairymen's League, and invited all farmers to pool (that was the word then) their production and set prices.

Substitute the words "Dairymen's

League" for "NFO" in Mrs. Steciak's letter, and you have the same message... only about 63 years later.

The conditions haven't changed much, however.

We still need joint action by dairymen to achieve the goal of price control. The trouble is, every time one group of farmers has a difference of opinion over methods and procedures in getting a better price, they break off and form another organization. That's one of the reasons we have 50 milk co-ops in New York State instead of one.

With all due respect, that's precisely how NFO got started. And now NFO has split apart and a NEW group called the Independent Farmers Alliance is working for the same goal!

When it comes to hogs, most of us in the Northeast only know what we read in the papers. Hogs and milk operate in different worlds. If Mrs. Steciak believes that NFO raised the price on hogs, it may be so.

Our own opinion, based on some years of reading farm publications, is that hog prices go up and down just like the prices of most commodities. The only new thing... and it's probably not so new at that... is that the method of buying and slaughtering has changed from central concentrations, as in the old Chicago stockyards, to more regional locations.

Perhaps this lends itself to what Mrs. Steciak calls a "hog lift." If so, I hope NFO can afford to keep lifting... because the law of supply and demand says that if farmers produce faster than people consume, prices will go down. Fortunately for

the meat producers, things have been looking pretty good of late.

The important thing is not whether NFO or Farm Bureau, or Grange, or Dairy Lea, or whatever, is individually doing a particular job well. What's really important is whether the cumulative effect is good for farmers.

The concept of joint bargaining by producers of a particular commodity didn't start with NFO. It isn't being practiced exclusively by NFO... and it hardly makes sense for one organization to accuse another of "begging" for prices (as Mrs. Steciak did) when we're all "doing our thing" for farmers with some success. (The recent increase in dairy parity was achieved through the joint political-economic action of major dairy cooperatives.)

Mrs. Steciak implies that the 18-cent cut in manufacturing milk prices requested by dairy co-ops in the Northeast was denied, with NFO the hero of the day. She doesn't mention that the reduction was sought in order to PRESERVE markets for Order 2 milk in the face of cheaper prices all around us. Nor does she mention that USDA did grant an allowance to handlers out of the pool that amounts to about 8 cents per cwt on the total of all Class II milk under Order 2.

Words Cheap

It's very easy to say that this allowance is a terrible thing which NFO fought against. However, unless NFO leaders are willing and able to buy and build manufacturing plants capable of absorbing multi-billions of pounds of surplus milk each year to stabilize the market for fluid milk, then what they are NOT doing in marketing milk speaks so loudly I can't hear what they ARE doing!

Such plants are now, and have been for many years, operated by cooperatives and milk handlers. Because of the failure to make money... or break even... on such plants, these operations have steadily been closing down.

I regret that one bulk reload station in West Winfield will not replace them. Neither will 50 reload stations, no matter who operates them!

The Song of the Lazy Farmer

My neighbor's cultivating corn and looking all run-down and worn; since early spring without a stop he's slaved away upon his crop, he's up before the roosters crow, and all day



long he's on the go, and even if the weather's bad he cannot rest because he's mad. His place looks wonderful, it's true, and still he says there's more to do; his pasture's twice as green as mine, his buildings all look clean and fine, his wife has time to run to town, while mine has always got a frown; I've got him beat on just one thing, I have more time to rest, by jing.

I can't see neighbor's argument that he must pile up ev'ry cent he can despite the hours it takes or if he winds up with the shakes, and never even call a halt except to put loot in the vault. He makes a tenth more ev'ry year than I can take in over here, but I am certain that my way of having some fun ev'ry day by heading for the swimming hole or trying out my fishing pole will give me ten years anyway beyond the time he's laid away; that means I'll make as much as he without that extra work, by gee.

HILLS OF HOME

Until my husband retired in 1958, we lived in New York State in the Catskill Mountains. Though we have enjoyed the mild winters in South Carolina, with no snow to shovel, I have missed the hills, and recently tried to express my feeling:

Oh, the beautiful hills!

Clad in their garment of green, rising to meet the heavens.

With the cloud shadows skipping about from place to place, forever changing the picture.

So majestic, so strong, so enduring. Storms beat upon them; the winds chastise them... but still they stand, the same today as on many yesterdays.

How I miss them! To me they are home. — Alice M. Brooks, Orangeburg, South Carolina.

YOUR HIRED MAN

Recently at our county Extension office I read a pamphlet for farmers who hire extra men. It talked of having good equipment, proper housing, good working conditions, etc., for your hired man, but failed to mention the aspect of developing a good relationship with him and his family.

Therefore, I have compiled these ten commandments for the employer of hired hands. Please bear in mind that when I talked of hired hand, I'm speaking of the dedicated man and his family who eventually hope to have a farm of their own.

1. **Respect your hired man.** Show respect for his rights, his family, and for him as a man. He has feelings, too.

2. **Don't interfere.** Stay out of his family affairs, unless there is an opportunity for you to help or give sound advice. Your hired man and his family have to live their own lives in their own way.

3. **Give ample time off.** Though he may love his work, your hired man still needs this; everyone needs to get away from it all once in a while. Selfishly trying to get the work of two men out of one will eventually leave you with none.

4. **Pay him on time.** Set up a regular payday and stick to it as much as possible. Any good man and his family appreciate the terrific expenses on a farm and can understand an explained and unavoidable delay once in a while. But remember... he, too, has expenses and bills that he has to meet!

5. **Don't try to be constantly disagreeable.** We all have our bad days, but remember that the reputation of being hard to work with spreads just as easily as the reputation of being a fair and friendly employer.

6. **Let him know you appreciate him.** An occasional word of praise, or proper credit when credit is due, is a great morale booster.

7. **Remember special events.** Every family man is thankful for an afternoon off to go Christmas shopping for his wife and children. He appreciates that special evening off to see his boy in the big game. Keep in mind those long extra hours he

(Continued on next page)

puts in for you in the spring and summer.

8. **Don't be a chronic complainer.** Nothing is more annoying than to be constantly reminded that your paycheck is just another bill hanging over your employer's head. Joint discussion is often beneficial; but remember... you hired him.

9. **Be a good citizen.** Make your hired man proud to work for you. And watch what you say to others about him... the grapevine of gossip is almost always injurious.

10. **Be trustworthy and honest.** Keep your word! If you make a promise or have an agreement with your hired man, go out of your way to keep it, or have a good explanation ready. If you're an honest man, he'll gladly listen. Otherwise, he and his family will lose respect for you, and no man works very long for someone he can't trust.

Though these are written to the employer, they also can be used in reverse. The hired man can apply them to his life and his attitudes toward his employer. He can expect in return only what he gives. — *Marcella M. Yasharian, R.D. 2, Wyalusing, Pennsylvania.*

ACROSS THE FIELDS

WE GO...

We had an inch of new snow one winter day, and all around us we could hear the snowmobiles... like an infestation of locusts. And what fun those youngsters were having!

Snowmobiling is practically 100 percent a pastime, and a good example of our affluent society, contradicting the cries of "hard times." As such, it may be a good way to work off our frustrations, but it does also present its problems.

Where are snowmobilers going to do their playing, without waking babies and irritating those trying to concentrate on other projects? It presents a good case for the need of preserving open spaces, doesn't it? If space is short today, it will be worse tomorrow, when our population is doubled or tripled!

Growing

The snowmobiling business is probably the fastest-growing industry in our State today. Where you would see one or two a few years ago, they are now playing around in droves. In our small State of New Hampshire there were 9,858 snow vehicles registered in 1968, and 16,898 in 1969!

And where do they go? Unless the owners are equipped with transport trailers or they happen to border a large farm with a cooperative owner, they can only run around on their neighbors' backyards and vacant lots.

We at Peachblow Farm have miles of farm roads and trails that we are willing should be used... so long as undue destruction or rubbish pollution does not take place. Some state parks are made available for snowmobiling, at a fee... but private landowners are expected to provide the space for nothing!

No Thrill

Police departments are not particularly thrilled at the new snowmobile-enforcement duties being thrust upon them. Not only do they

have to respond to all complaints made against snowmobile drivers, many of which have no legal basis, but they are supposed to see that all snow vehicles in operation are properly registered... and they are not equipped to chase down and examine all of them.

In most areas, there is plenty of land where miles of snowmobile trails can be laid out with a minimum of dangerous highway crossings. In some communities, the snowmobilers are organizing and laying out these trails, with the cooperation of the landowners.

Some are also building shelters and fireplaces in favorable spots where travelers can warm up and eat a lunch. This should lessen the temptation to break into summer camps for the same purposes. Some are organizing rescue parties, and have meetings to discuss safety measures and good citizenship.

In these cases, where good self-discipline is practiced, landowners have been cooperative... and law enforcement little problem. Such an organization could well be encouraged in New Hampshire by the local Conservation Commission.

Considering everything, we feel that snowmobiling should be encouraged... but controlled. We may as well capitalize on the winter activities that can be used to make the Northeast an attractive place to live. — *T. J. Frizzell, Charlestown, New Hampshire.*

Mettler

(Continued from page 11)

Abdominal wounds from gunshot... or wounds that cause intestines to protrude... are in a class by themselves. I have seen cows and horses die from gunshot wounds to the abdomen that were not even discovered until autopsy.

When the intestine protrudes, death is not as imminent as it was before antibiotics, but what you do can make the difference between life or death. Here, infection is the villain more than hemorrhage. Keep the animal quiet, protect the protrusion with damp, clean sheeting if possible... and do not put anything on the intestine or wound until the veterinarian gets there.

Treatment

What determines whether you should call your veterinarian, or should treat a wound yourself? Sometimes the best way to decide is to talk to him or give his phone-answering service a description and leave it up to him.

Of course, if there is a lot of hemorrhage... or a gaping wound that needs stitches... you will know you need professional help. Any wound that penetrates the body cavity or a joint needs veterinary attention. If your horse has had permanent tetanus toxoid, you may not need to call your veterinarian as quickly as if he had not. Cows seldom get tetanus, so this is not a concern.

Most important in first aid is do something, even if it is only keeping others from doing too much! In other words, take command, even if you are alone... don't lose your head. Next, of course, is to get advice and help from your veterinarian.

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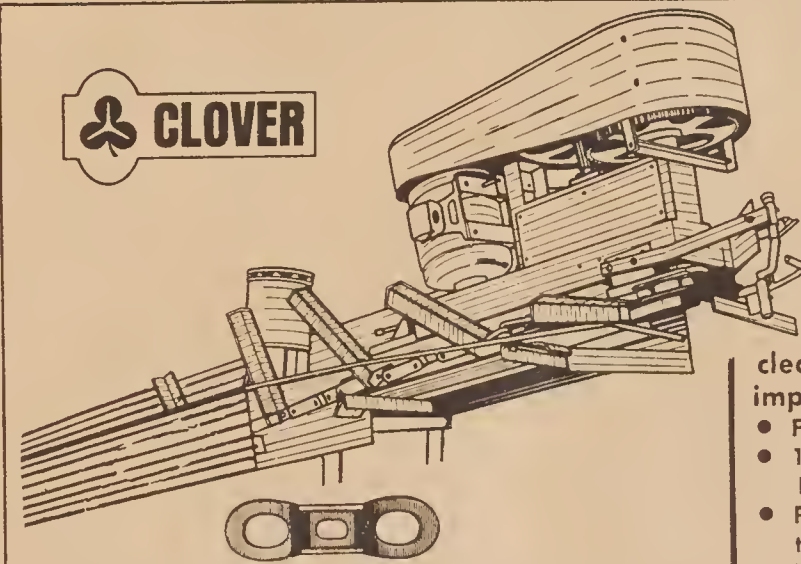
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LANDMARK LEGISLATION

FARMERS in New York State own 40 percent of its land area. In common with other northeastern states, New York is witnessing considerable urban pressure on its land resources . . . creating unusual interest in developing long-range programs for enlightened land-use policies.

A new law was passed by the last session of the Empire State's Legislature, and signed by Governor Rockefeller, with its stated purpose "to provide a means by which agricultural land may be protected and enhanced as a viable segment of the state's economy and as an economic and environmental resource of major importance."

Here are some questions and answers about the new law:

Just what land is involved?

There are two broad-brush categories of agricultural land mentioned . . . "viable" being one, and "unique and irreplaceable" describing the other.

"Viable," in this instance, describes land that could be expected to remain in farming for many years if not influenced by urban development. As an example, much of the land being farmed southwest of Geneva, New York, would be a logical candidate for qualifying as "viable" agricultural land.

The "unique" land is primarily that growing highly-intensive crops like fruits and vegetables. For instance, there are many acres of grape vineyards around the Finger Lakes . . . apple trees in Wayne County . . . and muckland in Orange County.

Are these two categories treated differently under the law?

Yes, particularly as to who can begin procedures for creating agricultural districts.

Requests for the creation of an agricultural district involving "viable" land can be submitted to a county legislative body by land-owners themselves. The county legislative body is authorized to create an agricultural districting advisory committee consisting of four active farmers, four agribusinessmen residing within the county,

and one member of the county legislative body. A minimum of 500 acres is required for a district.

As for "unique" agricultural land, the minimum required to form a district is two thousand acres . . . and it is created by the Commissioner of the Department of Environmental Conservation. He must consult with the local power structure, with the State Agricultural Resources Commission, and with other State officials. Public hearings must be held . . . as is the case with the districts containing "viable" land.

The procedures for creation of either type of agricultural district are lengthy . . . designed to provide reasonable checks and balances, as well as adequate opportunity for comment by everyone having an interest in the situation.

What does the designation of an agricultural district do for the farmer?

First of all, it makes him eligible for protection from the assessment of his land at some value higher than its agricultural value . . . if it involves 10 acres or more, and \$10,000 gross agricultural income annually. The agricultural value per acre will be determined by the State Board of Equalization and Assessment.

The local assessor would carry two assessments in his books . . . one denoting assessment on the basis of the land's agricultural value, the other indicating open market value (perhaps enhanced by potential use for something other than farming).

Secondly, local governments are prohibited from enacting local laws or ordinances that would unreasonably restrict farm structures, or farming practices within an agricultural district.

Furthermore, governments at all levels are subject to special limitation on the exercise of eminent domain within the districts . . . if the proposed acquisition involves more than 10 acres from any one farm, or more than 100 acres in any one district.

Finally, limitations are placed on certain public service districts . . . such as sewer, water, or drainage . . . to prevent "benefit assessments" of

agricultural land on the basis of frontage, acreage or value. This is designed to protect farmers from having to cough up large sums to pay for a water line, for example, that serves other people.

These provisions apply to any agricultural district, whether involving "viable" or "unique" land.

What's the idea of the 10 acres and \$10,000 minimums . . . why those requirements?

Well, partly to make the program more easily administrable by eliminating consideration of small parcels of land . . . and partly to discourage land speculators who are only holding the land for anticipated price increases. The speculators like to harvest hay . . . or do some other low-income (and low-cost) "farming" . . . to qualify for tax benefits. The \$10,000 requirement is designed to insure that commercial farming only is eligible for tax benefits.

Speculators can continue to hold farm land, some of it probably within agricultural districts, and they will be eligible within the districts for present-use assessment . . . but only if they are in fact engaged in an operation grossing at least \$10,000 annually.

Are these districts to be like special taxes . . . once created, never removed?

No, there is a requirement that the county legislative body review any agricultural district it has created eight years after the date of its creation, and every eight years thereafter. A similar mandate for a review every eight years is placed upon the Commissioner of Environmental Conservation in connection with those "unique" lands placed in a district.

This sounds great for those farmers in a district . . . what about the farmer whose land does not qualify for inclusion, either because it isn't "viable" or "unique," or in less-than-minimum acreage?

As the speakers always say, "I'm glad you asked that question!" Section 306 of the law offers the benefits of present-use taxation to any farmer owning ten or more acres of land from which he has sold at least \$10,000 of product in the preceding year.

There's a catch, though, for he must sign a commitment to continue to use such land exclusively for agricultural production for the next succeeding eight years. To be entitled to present-use assessment on a continuing basis, the owner must sign such a commitment every year . . . thus annually extending his eight-year agreement.

If the owner breaks his agreement and converts any or all of the land to non-agricultural use, then all his land previously entitled to special assessment loses that privilege . . . and a sort of breach of contract penalty becomes due. That penalty is equal to **two times** the taxes determined in the year **following** the breach of commitment.

Tax abatement is the only advantage available to those farmers outside agricultural districts.

What about penalties for those who signed up for an agricultural district, but later changed their minds?

If any land enjoying the present-

use assessment privilege within a district is converted to non-agricultural use, then there is a five-year rollback of real estate taxes. Remember that the assessor has been carrying **two** assessments in his book all along . . . and he would now collect taxes on the difference between the market-price figure and the agricultural-use one, for the previous five years.

Suppose some farmers in an area want to form a district, but don't like the five-year rollback provision?

Agricultural districts may be formed without asking for agricultural assessment. Suppose 10 farmers decided to ask for the formation of a district, and it was set up. Maybe none of them wants to apply for present-use tax assessment . . . they could still achieve the advantages of protection from nuisance ordinances, from indiscriminate exercise of eminent domain, and from the danger of excessive benefit assessments.

Furthermore, perhaps only a few of the 10 would apply for special assessment . . . remember that each farmer must individually apply for present-use assessment. Setting up an agricultural district does not require everyone . . . or anyone . . . within it to apply for present-use assessment.

Suppose I'm an older farmer hoping to eventually sell my farm for a shopping center . . . how can you justify fencing me into an agricultural district?

If your neighbors feel differently, and can convince the county legislators to tentatively approve a district, your farm might be included in the proposed district. You have recourse to express yourself at a public hearing . . . and, of course, to your county legislators.

Let's assume the gnashing of your teeth was to no avail, and you end up with your farm in the agricultural district . . . even though you opposed it. There is nothing in the law forbidding you to sell your place for other purposes than farming.

If you make a mint of money on the sale of land for a shopping center, and had availed yourself of the special assessment provision, you'd be subject to the five-year tax rollback. If you had paid the high-level taxes, though, up until the time of sale . . . your only "problem" would be with the income tax boys!

You still sound a little vague on some of these questions . . . and there are a hundred more that need asking.

Well, presented here are only the bare bones of the law. As with any legislation, the bones have to be fleshed out by the people who administer them . . . with as yet undeveloped administrative procedures, a host of appropriate forms to be filled out, and undoubtedly some legislative amendments. Beyond that, there may well be some litigation calling for court interpretations.

The important thing to be aware of is that New York has taken a significant step to protect its agricultural industry . . . and to encourage a major economic contributor, as well as a first-class asset to the environment.

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HORSE JUDGING CONTEST

THE February, 1971 issue of **AMERICAN AGRICULTURIST** published 5 classes, and invited readers to participate in a pictorial horse judging contest. There were 3298 entries, and 381 of them scored 218 or more (250 is a perfect score).

The cutoff date for entries was announced as April 15, 1971. A number of entries were postmarked after midnight of that date, and therefore were not considered for award competition.

Winners (those scoring 218 or more) are listed here:

CONNECTICUT

Lucie Alderman, Southbury
Pat Bennett, Tolland
Kathi Bourn, Andover
Debby Brinton, Coventry
Anne Ciola, New Haven
Mrs. Herbert Couch, Coventry
Roger Couch, Danbury
Rodney Gilbert, North Granby
Bill Guest, Newington
Daniel Hale, Storrs
Gail Humphrey, New Haven
Randall Knight, Storrs
Anne Mather, South Windsor
Hollis McKenna, Rocky Hill
Vicki Miner, Orange
Cynthia Rockett, Somers
Linda Tomel, South Windsor
Anne Vinyard, Coventry
Eileen Vostinak, W. Willington
Jill Yerger, Terryville

DELAWARE

Cindy Malin, Wilmington

MAINE

Jacqueline Dunbar, Bucksport
Brenda English, Monroe
Penny Gates, North Anson
Pamela Gray, Bucksport
Luann Wasson, Bucksport
Leon Weymouth, Lebanon
Robin Whitaker, North Anson

MARYLAND

Melani Abbott, Finksburg
Mary Alice Albright, La Plata
Martha Bowling, Charlotte Hall
Patti Bowling, Charlotte Hall
Mrs. Ellsworth Boyd, Gaithersburg
Eleanor Durham, Hampstead
Dale Elliott, Severn
Carol Glotfelty, Accident
Joan Glotfelty, Accident
Betty Lou Glover, Accident
Lawrence Glover, Accident
Tina Grossnickle, Union Bridge
Merton Henry, Lonaconing
Janie Huwig, Westminster
Sarah Jacobs, Linthicum
Linda Leffler, Columbia
Robin Medford, Gambrills
Valerie Phipps, Gambrills
Daniel Smith, Westernport
Clifton Tucker, Annapolis
Mary Wilson, LaVale

MASSACHUSETTS

Ernest Boutin, Sunderland
Christopher Brielman, Pittsfield
Fred Dennen, Gloucester

Diane Fronckus, Turners Falls
Cynthia Lee Grasso, Agawam
Betty Johnston, Amherst
Margaret Mellen, Ashland

NEW HAMPSHIRE

Michael Andrew, Epping
Sally Chickering, Westmoreland
Robin Culver, Durham
Helen Dufresne, Suncook
Jacqueline Dwyer, Mt. Vernon
Tom Gleason, Plaistow
Jean Ann Houle, Concord
Nancy Shonbeck, Westmoreland
Rhonda Watts, Wilton

NEW JERSEY

Shirley Baldwin, Vernon
Sue Bartholomew, Millville
Susan Critchlow, Upper Monclair
Cecelia Daugherty, Dividing Creek
Patricia Eckard, Ewan
Patrice Marie Gallaher, Cold Spring
Margery Hicks, Clifton
Cathy Hoppe, W. Cape May
Kathy Joyce, Monroeville
Liesel Kardo, Upper Monclair
Patti Klem, Millville
Karen Kostelansky, Lebanon
Linda Krotje, Newton
Kathy Leaver, Pompton Plains
Terry Lewis, Hopewell
Sandy Mitschele, Livingston
Eileen Mollineaux, Neshanic
Sam Oldham, West Caldwell
Sue Placek, Cedar Grove
M. Amos Rudderow, Moorestown
Julie Thies, Neshanic
Dawn White, Woodstown

NEW YORK

Maryann Adalfio, New City
Kathy Ahrens, Homer
Kathy Allen, Pleasant Valley
Susan Allen, Pleasant Valley
Ted Allen, Pleasant Valley
Lois Anderson, Freeville
Dorothy Applino, Shushan
Jeanne Applino, Shushan

B

Betty Bailey, Dundee
Carol Bailey, Dundee
Janet Bailey, Dundee
Linda Jean Bailey, Dundee
Nora Baldridge, North Rose
Joseph Barber, Bliss
Barb Beetow, Springville
JoAnn Bergner, Sherburne
Richard Beyer, Central Square
Doug Bowen, Endicott
George Bowen, Endicott
Kathleen Bowen, Endicott
Robin Brady, Schenevus
Ann Briggs, Deposit
Connie Briggs, Adams
Karlene Brinson, Oneida
Elaine Britting, Eden
Vanessa Brown, Trumansburg
Laraine Bryant, Owego
Daniel Bull, Jr., Suffern
Mary Jane Burton, Malone

C

Sandra Carbeck, Angola
Susan Carbeck, Angola
Tami Cartwright, Bliss
Susan Cederborg, Endicott
Michael Chambers, Unadilla
Mary Chandler, Cazenovia

Edgar Chapman, Conewango Valley
Pauline Chapman, Conewango Valley
Carolyn Chappell, Cayuga
Linda Clark, Central Square
Jane Chappius, Hillsdale
Diane Colligan, Angola
Susan Confer, Lockport
Randy Cross, Afton

D

Pat Dahlheim, Hilton
Donald Daigler, Jr., Lockport
Don Dechow, Cattaraugus
Jean Dedrick, Belfast
Mary Dedrick, Belfast
Conrad Degon, Malone
Kelly Dersam, Bliss
Robin Dersam, Bliss
Janet DiNitto, Washington Mills
Anthony Domin, Eden
Betty Domin, Eden
Howard Domin, Eden
Linda Domin, Eden
Mark Dusen, Attica
Penny Dushensky, Poughkeepsie

E

Ellen Eckelman, Carthage
Jane Eckelman, Carthage
Carol Elkan, Seward
William Ellis, Williamsville

F

Jeff Finch, Oxford
Kathleen Fisher, Bliss
Tom Foote, Holley
Kathy Frantz, Colden
Rhonda Fratus, Bliss
Eileen Frazier, Bliss
Marianne Freeman, Hilton
Diane Freisitzer, Pleasant Valley
Darby Freistedt, Vernon Center
Mrs. Peter Frerk, Cuyler

G

Deb Galarneau, Turin
Debbie Gaylord, Melrose
Edwina Gilbert, Hyde Park
Peggy Gilmore, Port Byron
Helen Glavin, Laurens
Carol Grabo, Scotia
Carol Grant, Fredonia
Cynthia Gray, Kendall
Karan Gridley, Ithaca
Robertta Gridley, Delanson
Susan Gridley, Delanson
Brenda Green, Black Creek

H

Ellen Haag, Bainbridge
Jane Hagar, Plattsburgh
Linda Harrison, Oxford
Susan Hartridge, Lebanon
Tracy Haslam, Bridgewater
Ralph Havens, Corfu
Kathleen Haverkamp, Poughkeepsie
Helen Herold, Morrisonville
Olive Herrington, Johnsonville
Sally Hervieux, Rodman
Denise Hickson, McDonough
Mrs. C. Hinterberger, East Aurora
W. H. Hoefler, Geneva
Shirley Hojnoski, Bath
David Holtz, Canajoharie
Sheila Hotchkiss, Glenfield
Marilyn Hutchings, Cape Vincent

J

Christine Johns, East Worcester
Susan Johnson, Hensonville
Arthur Jones, Stanfordville
Lana Jorgensen, Dunkirk

K

Millie Kasprzycki, Lewiston
Pam Kellogg, Homer
David Kempisty, Corfu
Susan Kern, Port Jervis
Carla Ketchum, Bliss
Kelly Ketchum, Bliss
Penny Ketchum, Bliss
Donna Jean Kinder, Brockport
Mrs. Jerry Kipp, Rome
J. R. Kipp, Rome
Joni Kirby, Hilton
Debbie Kisacky, Johnson City
Margaret Kniese, Plattsburgh
Mrs. John Koerner, Cazenovia
Lesley Koerner, Cazenovia
Susan Kross, Ellenville
Margaret Kuss, Fabius
Steven Kuss, Fabius

L

Michael Lamouria, Palmyra
Robin Lane, Penn Yan
Jackie Lavery, Bliss
Robin Lohnes, Schaghticoke
Nancy Luce, Riverhead

M

Lynn MacLaury, Harpersfield
Mark Mahoney, Baldwinsville

Laurel Marciszewski, Friendship
Teri Martin, Gouverneur
Maria Matthes, Ozone Park
Heather Mattson, Downsville
Lynn McClellan, Hamburg
Gilbert McCollough, Jr., Ashville
Denise McGinnis, Nedrow
Lillian McGowan, Oxford
Cathy Meza, Endicott
Theresa Mierek, North Western
Barbara Moore, Colden
Deborah Moore, Oxford
JoAnne Morse, Owego
Elizabeth Mudge, Canastota
Rick Mundelein, Windham
Charlene Murray, Endicott
Shelley Murray, Seneca Falls

N

Gail Nelson, Hamilton
William Nelson, Downsville
Rose Newman, Truxton
Diane Nickels, Owego

O

Allen O'Marah, Ogdensburg
Mrs. Allen O'Marah, Ogdensburg
Arlene O'Marah, Ogdensburg
Leslie O'Marah, Ogdensburg
Mary O'Marah, Ogdensburg
Sheila Ortlieb, Martinsburg
Cindy Osika, Hyde Park
Judy Outlaw, Canastota

P

Mrs. Anthony Paladino, Valley Falls
Debby Patchett, Baldwinsville
Patty Pattridge, Hunt
Joseph Pendergast, Cobleskill
Sandra Peterson, Schoharie
Susan Pierce, Brewerton
Sue Planeta, Bayport
Kelly Powell, Camillus
Katherine Price, Cortland
David Pritchard, Bliss
Cathy Prott, Endicott

R

Tammy Radley, Bainbridge
Loretta Reading, Hillsdale
Sue Redden, Bliss
Mrs. Albert Rehberg, Howes Cave
Dorothy Rehberg, Howes Cave
Kathy Rehberg, Howes Cave
Margaret Reiner, Rochester
Mary Riley, Boston
Debbie Rivers, Cadyville
Craig Robb, Batavia
Mrs. Robert Roberts, Bliss
Suanne Roberts, Bliss
Susan Roberts, Medina
Barbara Roche, Bliss
Corbin Rockhill, Moira
Dee Rounds, Manlius

S

Joseph Sadlow, Ava
Mrs. Gordon Samer, Bainbridge
Jean Sanderson, Lyons
Sharon Schoonmaker, Schenevus
Linda Schroeder, Pine Bush
David Scofield, Adams
James Scofield, Adams
John Scofield, Adams
Ellen Senft, Clark Mills
Patty Simone, Ithaca
Judy Slater, Maryland
Dawn Smith, Red Creek
Marcie Smith, Eggertsville
Gil Solloway, Oneonta
Marsha Stocker, Arcade
Beth Stringham, Alexander
Michael Spreutels, Mount Upton
Rick Stefano, Schuyler Falls
Mariane Steidle, Hunt
Alan Stevens, Virgil
Joe Spano, Jr., Utica
Gordon Spreutels, Mount Upton
Cheryl Surdam, Weedsport

T

Frank Tarplee, Deposit
Susan Tavano, Ransomville
Ralph Taylor, Sr., Walton
Jean Templar, Watkins Glen
Connie Todd, Bovina Center
Michael Torcello, Pavilion
Karen Turnbull, Rexford
Nancy Turner, Ithaca

V

Wayne Vanderlaan, Kendall
Denise Van Poortvliet, Cassadaga
Margaret Very, Machias
Linda Visscher, Nichols
Karen Volka, Cobleskill

W

Dale Waite, Salem
Laura Wallingford, West Nyack
Patty Walsh, South Plymouth
Tracey Walton, Bliss

(Continued on page 17)

American Agriculturist, July, 1971

Food For The Spirit



by Robert L. Clingan

BURDENS OF THE PAST

The Rev. Thomas McGovern of Rochester recently quoted a book contending that the prospects for peace in the world were impeded by the invisible personalities of history that attend every meeting for peace negotiation. At every session of the United Nations, representatives of each country are accompanied in spirit and influence by leaders of the past.

France cannot send one man without also sending DeGaulle and memories of the German occupation during World War II. Germany cannot send someone without also sending Bismarck, and memories of cities leveled by bombs. Russia cannot send a current ambassador without also sending Lenin, and wartime recollections of Stalingrad.

The author of this book thought that the peace-seeking processes of the present are handicapped by the memories the negotiations hold of great and powerful personalities... and the remembered experiences of humiliation, tragedy, and suffering. These bonds to the past bind the present into the kind of confrontation that makes progress for peace almost impossible.

These problems of the burdens of the past are equally true for individ-

uals. Too many lives are immobilized by the memories each individual carries into every new situation. These memories inspire timidity, commit one to passivity... and sometimes engender distrust, doubt, hostility, fear and hate. We cannot move creatively, and in time, because of the burdens of the past we bear.

Sometimes our lives are heavily shaped by personalities long dead who continue to dominate our patterns of thought. It is sometimes as though they were still with us, and we fear their disapproval. We remember the sayings that characterized their lives, and continue to influence ours... sometimes positively, sometimes negatively.

The classic example of a negative influence is beautifully portrayed in Robert Frost's poem, "Mending Wall." Frost's neighbor gets him to help rebuild the line fence broken by the winter frost and the spring thaw.

The poet asks, "Why must we rebuild the fence each spring?" The neighbor answers by quoting his father, "Good fences make good neighbors." The poet answered, "Only when there are cows." The neighbor, continuing to quote his father, insisted on a fence even though there were no longer any cows on either side of the boundary.

Christians have long felt that their Lord, Jesus Christ, made them free from the burdens of the past. They have felt that He calls nations and men to try new ways to build the peace, to find fulfillment, to be as creative as the times require.

Jesus said, "Behold, I make all things new."

Marlene Whitmore, DuBois
Alicce Williams, Seelyville

RHODE ISLAND

Debbie King, Slatersville
Daryl Knibb, Johnston
Jane Steinmetz, North Scituate
Susan Steinmetz, North Scituate
Karen Stender, Foster

VERMONT

Carol Geehan, Shoreham
Brenda Kenfield, Charlotte
Susan Loura, Barnard
Cindy Rowell, Lyndonville
Howard Russell, Hinesburg
Mrs. Beatrice Simon, Montpelier
Franklin Stevens, Chester
Joy Tisbent, Vergennes

TOP SCORES

The 10 contestants with top scores, each of whom received a special trophy, are as follows:
Suzanne Beyer

Central Square, New York
Linda Chambers

Troy, New York

Mary Crisco

Bridgeville, Delaware

Robert Cross

Castleton, New York

Paul Dean

Ithaca, New York

Doris Hackley

Port Crane, New York

Sue Mills

Scotia, New York

Harriet Rudderow

Moorestown, New Jersey

Vicki Sick

Cohocton, New York

Mrs. Sherman Wright

Killingworth, Connecticut



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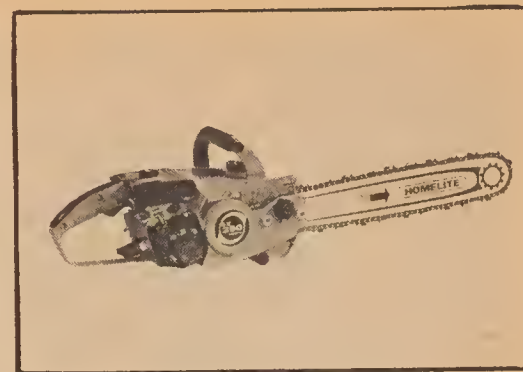
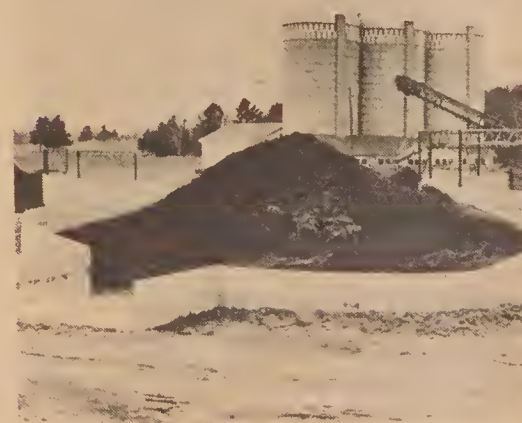
The newest agricultural tractor... a machine designated the 4040, powered by a 16½ hp Onan air-cooled engine... has been introduced by Simplicity Manufacturing Company, Inc., Port Washington, Wisconsin.

The new 4040 features a 15-inch high-clearance frame. It also accepts a wide range of engine-driven agricultural and maintenance attachments for front, middle and rear hook-up. Its hydrostatic drive provides a continuous selection of ground speeds, forward and reverse, in three ranges. It also permits attachments to be operated at different speeds from the speed of the tractor, as the job requires.

Tractor power trains valued at more than \$1,250,000 were donated to educational institutions in 1970 by Ford Motor Company through its Tractor and Implement Operations - North America. The 280 power trains, consisting of engine, transmission and rear axle, were distributed to qualifying high schools, colleges, universities and vocational technical schools.

The power train donations are coordinated with Ford Tractor dealers, many of whom personally present the units to schools and follow up with advice and maintenance service. Training aids such as wall charts, instructor's notes and service manuals are provided with each donation.

"The Common Sense Method of Cattle Manure Handling" recommended by Patz Company involves an above-ground holding area with wall and paved floor to hold the daily accumulation of liquid and solid manure until fields are ready to be tilled. Then spread the manure, work it into the soil, and let nature do the rest. For full information on the material handling equipment needed to carry out this type of program, write to: Department AA, Patz Company, Pound, Wisconsin 64161.



Check with your Homelite dealer for a look at the new E-Z 250 with exclusive Tension-Rite automatic chain tensioning system. It sets, adjusts and holds the correct chain tension for you... also adjusts for normal chain strength so there's no need to stop cutting to adjust the chain.

Other new features: built-in tachometer to show correct idle speed; thick non-slip rubber coating molded to handle bar; fuel and chain oil-cap retainers. Power is increased with the new 'Hemi' engine with noise suppressor to muffle annoying frequencies or "bark."

John Deere's model 7700 combine won an award for Best Engineering of Agricultural Equipment in the 1970-71 Design in Steel Award Program sponsored by the American Iron and Steel Institute. Deere product engineers also received a citation for Excellence in Design for the high-capacity combine, which harvests grain in swaths as wide as 24 feet and as many as eight rows of corn at one time.

The use of steel enabled the engineers to design a machine with 25 percent more capacity than the top model in the company's previous line, and only a small increase in physical size.

The new 8-inch-diameter unloading auger on New Holland's newest grinder-mixer (model 352) empties the mixing tank in about half the time it takes competitive units, according to the manufacturer. The fast unloading rate is the combination of the larger-diameter auger and the redesigned mixer-tank discharge area.

Model 352 features optional discharge augers of either 13 or 17-foot lengths. The 17-footer folds for transport and can be operated as a 10-foot unit. Fully extended, it can discharge into bulk bin openings above milking parlors.



Contest

(Continued from page 16)

Frederick Warner, Belmont
Kathleen Weaver, Hudson Falls
Winfield Weaver, Hudson Falls
Michael Weber, Boston
Barbara Wells, Newark
Renee Wells, Salem
Susan Wendler, Appleton
Lucie West, Brocton
Pam Whitney, Macedon
Bonnie Williams, Rhinebeck
Pearl Williams, Oneida
Merton Wilson, Newark
Milly Wirkki, Cherry Plain
Pamela Wood, Monsey
Ann Woodard, Denmark
Donna Wright, Voorheesville

Y

Beth Yeates, Angola

Z

Rosemarie Zimmer, Angola

PENNSYLVANIA

Ed Brown, Philadelphia
Mrs. Sam Calantoni, Easton
Kathleen Caldwell, Adamsville
Barbara Clouser, Madisonburg
Kenneth Clouser, Madisonburg
Helen Conn, Franklin
Francis Danver, Clearfield
Eileen Duttry, Clearfield
Martha Duttry, Clearfield
Regina Frisk, Mercer
Kathy Gotshall, Port Allegany
Jean Grim, Pottstown
Esther Hauenstein, Pleasant Mount
Karen Homer, Oreland
Sally Knarr, Troutville
LuAnn Lyons, Indiana
Mary McBerty, Oxford
Joan McFarland, Oaks
G. E. Myers, East Springfield
Mrs. Karl Peckmann, Philadelphia
Debbie Perkins, Lansdale
Salley Rhea, Erie
Harry Sebring, Leighton
George Shenkle, Collegeville
Victoria Shenkle, Collegeville



'ROUND the KITCHEN

with ALBERTA SHACKELTON

Ideal for a hot summer's day is the Cook-Out featured in this month's photo. For something different, start with Shrimp Scampi — individual foil packets of tastily seasoned shrimp cooked over the coals — to be enjoyed with hot, crusty French bread and summer beverages while chicken barbecues on the grill.

Good go-alongs for the chicken are a delicious molded potato salad (made well ahead of time, packed in a large oiled tube pan, and unmolded on crisp greens for serving) and a vegetable salad — the Tomato and Avocado one shown, a platter of summer vegetables with appropriate dressing, or our Golden Salad. Orange or Sea Foam Frosted Applesauce and Raisin Cake will be a popular dessert.

WONDRA APPLESAUCE

'N RAISIN CAKE

- 2½ cups Wondra (instantized flour)
- 2 cups sugar
- 1½ teaspoons baking soda
- 1½ teaspoons salt
- ¼ teaspoon baking powder
- ¾ teaspoon cinnamon
- ½ teaspoon cloves
- ½ teaspoon allspice
- 1½ cups canned applesauce
- ½ cup water
- ½ cup shortening
- 2 eggs
- 1 cup raisins
- ½ cup chopped walnuts

Measure all ingredients into a large mixer bowl. Blend ½ minute on low speed, scraping bowl constantly. Beat 3 minutes at high speed, scraping bowl constantly. Pour into a greased and floured oblong pan, 13×9×2 inches, or two round layer pans. Bake in a moderate oven (350°), 60 to 65 minutes for oblong pan, 50 to 55 minutes for layers. Tester inserted into center should come out clean. Cool.

If desired, frost with Orange Frosting made by blending together ½ cup soft butter and 3 cups confectioners' sugar. Add about 2 tablespoons orange juice and beat until smooth and of spreading consistency. Stir in 2 teaspoons grated orange peel. If desired, substitute a brown sugar double boiler frosting.

SHRIMP SCAMPI

- 2 pounds uncooked large shrimp
- ¾ cup butter
- Garlic or onion salt if desired
- ½ teaspoon each tarragon, rosemary and thyme or your favorite combination of herbs
- 3 tablespoons lemon juice
- Salt and pepper

Remove shells, leaving tails in place, and devein shrimp. Combine butter, herbs, garlic or onion salt in small saucepan and let stand a few minutes over heat to blend flavors; then add lemon juice.

Tear six 12-inch squares of heavy duty aluminum foil and arrange 4 or 5 shrimp on each. Pour the butter mixture over shrimp and sprinkle with salt and pepper. Bring foil up

over shrimp, gathering edges together and twisting at top to form a poke. Place on grill over a medium-hot fire and grill for 10 to 20 minutes.

Wrap French bread in foil and heat on grill for 5 minutes, turning once.

Note: Peeled frozen shrimp,



Photo: Reynolds Company

For a most unique cook-out, try these individual foil packets of Shrimp Scampi, served with hot French bread and followed by Barbecued Chicken and a fresh garden salad.

slightly thawed, may be substituted for shrimp in the shell.

GOLDEN SALAD

Combine 2 tablespoons unflavored gelatine, ½ cup sugar and ½ teaspoon salt. Add 1½ cups pineapple juice and stir over low heat until gelatine is dissolved. Remove from heat and stir in ½ cup orange juice and ½ cup vinegar.

Chill till slightly thickened and fold in 1 cup crushed pineapple (well drained), ½ cup well drained Mandarin orange sections, and 1½ cups coarsely grated carrots.

Turn into a 1½-quart ring mold lightly oiled with salad oil and chill until firm. Unmold on crisp salad greens and serve with a favorite salad dressing. Serves about 12.

Interesting Cookbooks

General Mills, Inc., has recently reprinted the 1904 Christmas edition

of Gold Medal Flour Cookbook, originally published during the holiday season for "the discriminating homemaker of 1904." It contains many recipes, advertisements, and cooking tips long forgotten.

You may obtain a copy by sending \$1.25 to General Mills, Inc., 9200 Wayzata Blvd., Minneapolis, Minn. 55440. Be sure to give your name and address, including zip code.

A 1971 cookbook, "Kay Kellogg's Creative Cookery," is also available. This book is offered free on specially marked packages of several Kellogg's cereals, with a handy form provided for ordering your copy.

State College of Human Ecology at Cornell University, Ithaca, New York. Single copies are free to New York State residents; price given for non-residents.

"Shoppers' Cent Saver." Consumer Education Leaflet No. 17. Handy guide to help you compare the cost of packages of different sizes and weights. Carry it with you when you shop. 10 cents.

"Useful Facts About Baking." Information Bulletin No. 9, March 1971, will help homemaker understand hows and whys of baking. 15 cents.

"Kitchen Tools and Pans." Information Bulletin No. 10, March 1971. Describes and illustrates basic tools and pans for different jobs. Helps make kitchen work easier and saves you time. 15 cents.

Send your requests for the above bulletins to Mailing Room, Building 7, Research Park, Cornell University, Ithaca, N. Y. 14850.

Friend, Break Bread With Me

by Geraldine Ross

Have you ever eaten juicy red tomatoes or those sweet little yellow bells, fresh from the vine, and still warm with July or August sun? Have you ever relished a just-pulled carrot, washed clean with water from a well?



Have you ever drunk butter-milk, left from newly-churned butter, or eaten a "heel" of bread, fresh from the oven, with butter melting on it? Have you ever eaten potatoes you have dug, scrubbed clean, then roasted in a bonfire on a blue, smoky evening in fall?

Have you ever sniffed the wonderful aroma of fish, straight from a lake to the pan in which they are frying, that odor heightened by the clean, sweet scent of lake and ferny wood? Have you ever feasted on such fish as you feasted, also, on the beauty of firelight, crimson and gold against deepening twilight, and the twinkle of friendly "promise of heaven" stars?

Child or grownup, if you have never savored such manna, you just plain haven't lived!

To the day she died, when my mother knew I was coming for a visit, she planned for days ahead what to serve for every meal we shared. To her, as to many others, food was a way of saying, "I love you. I understand. I care."

I never see birds on a snowy bough, a tired old horse dragging a wagon along a country road, or a lean and lonely dog but I wish achingly for a crust of bread, an apple or a juicy bone to share with them.

Truly, eating is more than nourishment. It is beauty. It is grace. It is thoughtfulness. If you would call me friend, let me feed you.

American Agriculturist, July, 1971

Kitchen Bookshelf

"Your Money's Worth in Foods." Home and Garden Bulletin No. 183, U.S. Dept. of Agriculture, December 1970. 25 cents. Provides information on how to plan well-balanced meals and how to shop for foods in each of the basic food groups.

"Conserving the Nutritive Value In Foods." Home and Garden Bulletin No. 90, U.S.D.A., January 1971. 10 cents. Gives information about the best way to handle and prepare at home the foods purchased, in order to conserve important nutrients.

Send your request and money (no stamps) for either or both of the above bulletins to Superintendent of Documents, U.S. Govt. Printing Office, Washington, D.C. 20402. Be sure to include name and address, including zip code.

The following three leaflets have been published by the New York



by Katy and George Abraham

Home Grown Corn

Even if you made a sowing of corn last month, there's no reason why you shouldn't make another one now, using a midseason variety. Then you can have a fine batch of corn in early fall. Many AA gardeners tell us they prefer a late batch of corn because it has fewer worms in the ears than early varieties. There's something to this, since the adult moth is done laying eggs by the time much of the late corn is around.

Corn is a heavy feeder, so in summer plan on giving it a balanced plant food. When corn leaves show a sickly, yellowish-green color with some plants dwarfed, or when leaves have a purplish hue, chances are these are hunger signs. Yellow leaves mean lack of nitrogen (or poor drainage), and purplish color means lack of phosphorus. If you want top-notch flavor, apply water to your corn plants, especially when the silks appear and the ears are developing.

Does it pay to sucker corn? No. Removing suckers from the base of the plants is not sensible. How about tassels? Many have asked if removing them will give you earlier corn or worm-free ears. The truth is you get more ears if you leave both the suckers and tassels on.

Florists' Azaleas

Don't forget to keep that azalea (Mother's Day or Easter gift) watered during July and August. It should be resting under a bush now and be kept watered all summer. You can pinch back any leggy shoots now, but stop pinching after July 15. Give the plant 2 or 3 doses of ammonium sulfate, 1/4 teaspoon per pot for each application.

In early September, bring plant indoors before frost hits. Place in a cool location where night temperature will be 40 to 50 degrees. This cool period is important and can mean the difference between blooms and no blooms. You can also start new plants now. Stick cuttings in pots of perlite or sand; keep them moist and shaded from direct sun.

The Great Rhubarb Boo-Boo

There's some good to come from any error! We received a total of 38 letters advising us of the mistake in our March column concerning the application of rotted manure and fertilizer to rhubarb. This proves that someone is reading our department! The printer's devil sneaked one in on us, and we appreciate the many letters advising us of it.

Spray Your Glads

Many feel that if their gladiolus bulbs are treated before planting no other care is needed to keep off insects, but they should be sprayed or dusted regularly. When glad spikes produce flowers, then seem to "cup" or shrivel, this could mean gladiolus thrips, a tiny troublesome pest of this favorite flower. Thrips look like a small (very thin) pencil

mark. If you look closely on the flowers and stems, you can see the pest move. Thrips cause white petal markings and oftentimes browning of buds, plus a failure of flowers to develop.

Control: You can help control the pest by treating bulbs with Lysol (as many did at planting time), but you should also dust or spray the spikes and leaves with Sevin or malathion every week or ten days. Start from the time they are a few inches tall.

Moon Valley Plant

For a long time we've been getting letters from AA readers asking us for information about a "moon valley plant." At first we weren't sure which plant this was, but some readers did some research and came up with the answer.

The new plant is *Pilea involucrata*, introduced as *Pana-miga* or *Pan-American Friendship Plant*, a handsome relative of the aluminum plant (*P. cadieri*) and artillery plant (*P. muscosa*). Moon valley plant is unique because the foliage is mahogany-bronze and attractively puckered. There are also small clusters of coral-like flowers borne in the terminal growth. The plant likes warmth, ample moisture, moderate light and a humusy soil.

Spider Plants

A good item to have in your home is the spider lily or spider plant (*Chlorophytum elatum*). This plant has grass-like leaves, some striped, and is ideal in hanging baskets. It bears small flowers along arching stems, which in turn will bear baby plants with hanging roots and tufts of leaves.

Spider plant is a toughie; it's tolerant to indoor conditions and is generally indestructible. You often see them flourishing in sunny windows of laundries, restaurants, barber shops, etc., where humidity is ample. Start new plants by rooting the baby plantlets in a pot of soil.

Apricots Bear Nothing?

Why is it that apricots will often send out flowers in spring, yet fail to produce a crop of fruit by fall? Usually it's a matter of spring frosts. Keep in mind that the apricot blossoms about a week earlier than the peach and the blossoms shucks are shed earlier, leaving the small green fruits exposed at an earlier date when frost is more likely to occur.

Small apricots are killed by a temperature of 29 degrees. Sometimes heat from the house or blacktop is just enough to prevent spring frost damage and save your crop. That's why it is a good idea to plant an apricot next to the house. While some apricots will cross pollinate themselves, it's a good idea to plant two trees for rooster effect.

If you can grow peaches, there's no reason why you can't grow apricots. If your tree doesn't have small green fruit on it now, you can blame it on either spring frosts or a lack of cross pollination.

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by E. R. Eastman



The sales of "Journey to Day Before Yesterday" continue to be good because so many who have read it keep telling others about it. Young and old alike get a kick out of learning how their forefathers lived; and youngsters really begin to believe that Grandpa's stories "really happened."

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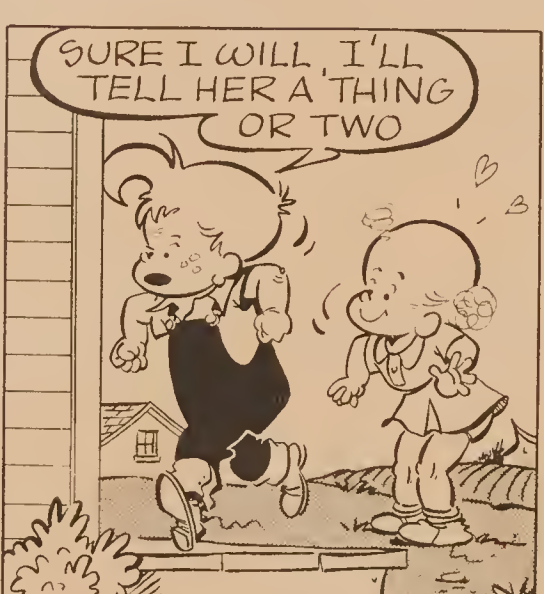
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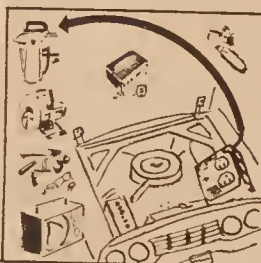
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Boyd Strickland (left) and county agent Doyle Thomas visit about the feeding of young cattle in the heifer barn.



HEIFER BARN

Growing young cattle in separate facilities . . . and a general upgrading of priorities toward this part of dairying . . . seems to be gaining ground in the Northeast.

An example can be seen at the farm of Boyd Strickland of Nicholson (Susquehanna County), Pennsylvania. Boyd has 65 milking cows, a herd average currently around 16,260 pounds of milk, and a shade over 630 of butterfat.

In November of 1969, he started using a 96×42-foot free-stall addition to his stanchion barn. There are five groups of animals in the addition . . . young cattle grouped by age, and one group of dry cows. Each group has access to a pen having a feeding area along one side, as well as to a free-stall section.

Moving Time

Calves come out of the warm dairy barn to the young-cattle structure at two to three months of age (unless it's in the middle of a teeth-chattering cold snap). Then they move through successive pens as they grow older, until they return to the milking string in the main barn.

Silage and hay, as well as grain, are fed along the feeding alley all across one side of the building. At first, this side was open toward the east . . . but snow-laden winds

clashed with silos and dumped too much snow inside the heifer barn. So now that side is enclosed from the ground to within a yard of the roof.

Cold Barn

Although it's technically a "cold barn," there was only a week during the winter of 1970-71 when manure couldn't be scraped from the floors because of freezing conditions. Normally, floors are cleaned three times a week.

Partitions separating the groups are conveniently hinged so they can be swung out of the way for drive-through scraping with a tractor and front-end bucket. Manure goes from bucket directly into a manure spreader.

Bedding is sawdust . . . an item increasingly hard to find in the area. "We have to go 50 miles (one-way) to get it, clear to Pennsylvania's Sullivan County," Boyd comments. An obvious advantage of the free-stall setup is the reduced bedding requirements as compared to conventional housing.

Animals look clean . . . in fact, Boyd admits they are cleaner than he believed they could be before trying out free stalls. "I've never before had heifers grow like these have," he comments. "And they have performed unusually well when they go into the milking lineup." — G.L.C.

American Agriculturist, July, 1971

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The catamaran, a modern version of the ancient Polynesian outrigger canoe, is a familiar sight at Waikiki. It comes right up to the beach to pick up vacationers for a sail to Diamond Head and back.



Don't just dream...

GO TO HAWAII THIS FALL!

Everyone dreams of going to Hawaii, Paradise of the Pacific "some day." Don't put off this delightful experience any longer — make "some day" now and come along on our **Aloha Week Hawaiian Holiday** from **October 9 to 21**. You'll have the time of your life and wonder why you waited so long!

We will visit the four best known islands — Hawaii, Maui, Kauai, and Oahu. On **Hawaii, the Big Island**, we first visit Hilo, orchid capital of the world and see the nurseries where these exotic blooms are grown. We'll also visit Hawaii National Park, Akaka Falls (which are higher than Niagara) and pass through the vast Parker Ranch on our way to Kona.

A tour of the historic Kona Coast will take us to the City of Refuge, Captain Cook's Monument, and a mill where the world-famous Kona coffee is ground. Also, Kona waters abound with marlin, tuna, shipjack and bonito; arrangements can be made for any who wish to try their luck.

Two of the things we'll see on the **Valley Isle of Maui** are Lahaina, first capital of the Islands and the place where much of the movie "Hawaii" was filmed, and "The Needle," a fern-covered volcanic freak rising 2,000 feet above the valley floor.

Kauai is known as the **Garden Isle**. Here we'll make an excursion up the placid Wailua River to Fern Grotto State Park and take a trip to Waimea Canyon, "Grand Canyon of the Pacific." Our hotel is on beautiful Kalapaki Beach, one of the finest in Hawaii. Another attraction is watching the traditional and stirring torch lighting ceremonies, an old and cherished Kauai custom.

On a full day's trip around the **Island of Oahu**, we'll visit Sea Life Park and the Polynesian Cultural Center where six native villages have been constructed, depicting the culture of Samoa, Tonga, the Maoris, Fiji, Tahiti, and Hawaii. On another day we will visit Pearl Harbor to see Battleship Row and the sunken USS Utah and USS Arizona. These battleships have been left where they sank as a permanent memorial to our servicemen who gave their lives on that infamous day of December 7, 1941.

Like all **AMERICAN AGRICULTURIST** tours, our Hawaiian Holiday is an all-expense trip, with everything included in the ticket price — all transportation and baggage handling, all scheduled sightseeing, most meals and tips. We have purposely omitted a few meals in Waikiki, so you can have the fun of trying some of Honolulu's excellent restaurants. Our tour escort arranges everything for you, so you have no travel worries of any kind. All you have to do is relax and enjoy yourself.

Another Fall Vacation

Always a very popular short trip, our **1971 Fall Foliage Tour** will be from **October 1 to 9**. This year we will leave from and return to New York City, with a stop in Albany to pick up tour members from that area.

We travel through the colorful Berkshire Mountains of Massachusetts to visit Old Sturbridge Village and explore the 36 original buildings moved there from many sections of New England. Next comes a tour of Cape Cod and its many colorful villages, then a visit to Plymouth where we'll see Mayflower II,

Plymouth Rock, the Plymouth Wax Museum, and Plimoth Plantation.

We'll see the well known and historic places in Boston, including Harvard University's famous collection of glass flowers. Lexington and Concord come next, and we enjoy luncheon at Longfellow's Wayside Inn, the country's oldest operating inn.

On our way to Portland, Maine, we stop at Nathaniel Hawthorne's "House of the Seven Gables" in Salem and also visit Witch House. We see beautiful Lake Sebago, covering 46 square miles, and situated in one of the foremost resort regions in the "Pine Tree State."

Probably nowhere in the world is autumn foliage more beautiful than in New Hampshire and Vermont. Crossing the New Hampshire border, we find ourselves in the White Mountains, one of the Northeast's most scenic areas. Mt. Washington and other peaks in the Presidential Range loom above us, and everywhere is the ever-changing colors of the foliage.

One morning we ride to the top of Cranmore Mountain on the Skimobile and then drive through Franconia Notch to see the famous "Old Man of the Mountains." Next, we cross the Connecticut River into Vermont to visit the Maple Grove Museum, the capital city of Montpelier, and the world's largest marble exhibit at Proctor.

Write today for the itinerary for our **Fall Foliage Tour**. You'll be surprised how low the cost is for this fine 8-day vacation trip.

Hurry!

There is still space available on the following tours and cruises, but don't delay any longer in making your reservations, or you may be disappointed.

Heart o' the West—July 31 to August 22.

Grand Alpine Holiday—August 3-26.

Eastern Canada-Bermuda Cruise—August 5-18.

Alaska Cruise-Glacier Park Holiday—August 19 to September 4.

Grand European Holiday—August 28 to October 6.

Portugal-Morocco-Spain—September 9-30.

Flash!

We just learned that our **1971 Get Acquainted and Reunion Weekend** will be **October 22 to 24** at Hotel Hershey in Hershey, Pa. Mark these dates on your calendar and plan to be with us. We'll give you more details later.



"Dear, where are the grass shears?"

With Our ADVERTISERS



This year, Monarch Range Company of Beaver Dam, Wisconsin, celebrates its 75th anniversary, and what changes those 75 years have brought to the kitchen!

Four appliances have been selected for special emphasis during 1971 — a 30-inch "Hi-Broiler" gas range with "Sta-Klean" oven, a double-oven "Modernique" 30-inch electric range (pictured) with "pyro-Klean" pyrolytic lower oven and "Sta-Klean" upper oven, a front loading convertible dishwasher with chopping block top, and Side-by-Side frost-free refrigerator-freezer combination.

All are available in Monarch's anniversary color, "gold haze," as well as in white and other colors.

Trucks skid when their wheels lock. A good anti-skid system, such as the one co-developed for light trucks by International Harvester Company and the Automotive Control Systems Group of The Bendix Corporation, will bring a truck to a nearly straight-line stop in the minimum possible distance on almost any road surface. The system does this by never permitting wheel lockup in any situation.

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For details, write Department AA, International Harvester Company, 401 North Michigan Avenue, Chicago, Illinois 60611.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

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Heart o' the West _____	Grand European Tour _____
Alaska Cruise _____	Eastern Canada-Bermuda _____
Grand Alpine Tour _____	Fall Foliage Tour _____

Name _____

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Gayway Farm Notes

by HAROLD HAWLEY

CALL IT A POLLUTANT

Our technology goes on apace. It's getting commonplace to read where some agency or other has lowered the tolerance limit for this or that from ten parts per million down to one part.

This may be progress... depending on whether anyone has even demonstrated whether one part, ten parts, or one hundred parts per million were really harmful or safe. All too often, the improved gadgetry enables more precise measurement of any material without all that much research having been done to determine what is really a safe and sane tolerance level.

A Shocker

Well, anyway, in the midst of all this micro-analysis it came as a shock to this farmer to find out that no one stood ready to analyze some soil samples to determine the amount of residual atrazine in them.

We decided we'd like to clear-seed a field of alfalfa. It had been in corn for several years with atrazine applied each year. Thousands of acres must be in a like situation every year. The owner wants to follow corn with oats or alfalfa, and he's not sure it's safe. So he goes back to corn again, cutting down on his weed-control application so as to be sure he can grow something else the following year.

Some soil analysis research along the way would suggest what crops could be grown with given levels of residual atrazine or any other herbicide. I suppose if someone casually started talking about such residues being pollutants, we would soon have some techniques developed for measuring them!

NEW CORN PLANTER

This year our corn was put in with a six-row rig. It spaced the seed nicely and put the fertilizer well away from it which reduced the risk of burning the seed. This used to happen when we put more of the fertilizer through the planter, and when the seed and fertilizer were placed closer together. This was a real problem on side hills because when the planter slid around a little the seed and fertilizer on half of the rows were even closer together... too close!

This new planter works fine... and I like it... but I would change it a few ways if I were building it from the ground up.

Let's start with the markers. On a six-row machine, they have to be pretty long. We talked about having them come through short enough so instead of driving over the mark with the tractor we would drive on it with the inside front wheel. This is with a wide-front-end tractor, of course. Well, they all come through

long... but can, of course, be shortened by cutting out a piece in the middle and welding the ends back together.

Do It Later

We decided to plant with it as was and do the customizing some rainy day. That was all right, except that always on such a day the planter was a long way from the torch and welder.

We have convinced ourselves that, when we do cut the markers, we will hinge them so that they will fold in over the planter. Once in a field and having planted away from the fences and fence rows, the other marker which was not being used on the first round could be extended out, locked there, and used as now.

We toyed quite seriously with the idea of an eight-row planter. Even with a six, we see some disadvantages compared to a four-row. On uneven ground, it's just unrealistic to expect to place your seed correctly in all the rows. A rigid bar 18 feet long with the wheels twelve feet apart just naturally means you don't do as good a job of planting as with a four-row... or a two-row, for that matter.

No Problem

I've seen eight-row rigs work in the large, level fields of the Corn Belt and there isn't that much of a problem. Probably we'll someday go to an eight, but I'm still pretty much convinced that there isn't much sense in spending all the money it takes for seed, fertilizer, and seedbed if the seed isn't placed so it will grow. I guess what I'm saying is that in our kind of country a six or an eight-row rig should be hinged in the middle to give the machine more flexibility to follow the contour of the land.

Why 36?

In this day and age of narrow rows and no-till planting, how come we opt for a conventional planter with 36-inch rows? I guess everyone just has to pay his money and make the choice he thinks best for his situation.

After all the noise has died away, we can't find much solid evidence that narrow rows would boost our yields. Frankly, we aren't up in the yield bracket of 150 bushels per acre. If we were, possibly the more even spacing and better light penetration which would come with narrower rows would help.

If there isn't a yield-increase potential for narrow rows, it's pretty hard to see spending the money to convert our harvest equipment. Likewise, we have trouble enough spraying and harvesting on our slopes even with 36-inch rows without going to something narrower.

As for no-till, we don't think our

conditions are ideal for it. Our clay knolls... and the packed situations in some fields due to spreading manure when the ground was too soft and wet... just would not add up to good stands. We feel that for other situations, with more uniformly mellow soil, a no-till program would be fine.

We have a lot of land where we could grow corn with a no-till system. For the rest, we think we would sacrifice far too much yield... so will stick to the plow, disc, and regular planter for our conditions and envy the guy who has the kind of land which makes no-till possible!

WISE OLD LEADERS

Age is somehow supposed to bring wisdom and therefore, we tend to venerate some of our wise old leaders. In many cases this is a justified and well-deserved recognition of their talents and mature judgment. In other cases, under our Congressional system of seniority and committee chairmanships, one wonders!

The power which goes with seniority is awesome and, naturally, sometimes abused. At times, our wise old leaders might better be described as senile old rascals with a ready-made and legal means of directing the legislative process as they see fit.

We turn now from men to geese, if that's not too great a switch. As a boy I read and swallowed whole as many of the books on wildlife and nature as our little community library carried.

Somehow, Mr. Burroughs and other authors got me to thinking that when a gaggle of geese flew over, they were following the leadership of a wise old gander whose age, wisdom and experience gave him the right to lead.

Thousands of geese spend time in our general area each spring and fall. This spring we saw literally hundreds of flocks.

So who was the leader? As far as we could tell, no one goose



had any claim to the title. The lead constantly changed, as it does in a distance footrace by humans, and the direction of flight frequently shifted as a new "leader" got others to follow his version of the right way.

No one can argue that the geese are able to make it from the far north to here and then on south in the fall, and then back over the same general routes the next spring. Whether they argue and compromise and change leaders all the way, I don't know.

Maybe when we see them around here, just flying from water to feed and back again,

they don't need the leadership of any one bird. Perhaps that is when the young get to learn how to lead.

At any rate, even our legislative seniority system is better than the hit-and-miss leadership exhibited by most bunches of geese.

The eager-beaver young congressman who would lead on an issue draws up a bill, and the committee chairman decides if that direction is suitable or not. If so, the legislation moves. If not, no dice.

Unlike the young geese who seem able to temporarily lead the flock, our young legislator takes us nowhere.

Our system has merit, if there could just be some way to pension off the old boys who stay too long!

FATHER SHOULD KNOW, TOO

A while ago, I made some comments about the desirability of farm wives knowing a good bit about the business, its finances, etc. Sure enough, the women agreed with me (or so they said), but pointed out that maybe the lord and master needed to know some things, too.

With his wife doing the bookkeeping and banking, he may not know when payments are due, or when rents are due, or what are the deadlines to get discounts, or even where the checkbook is. A short stay in the hospital, or a trip to visit her folks, caused some farm wives to realize how truly valuable are their services as executive secretary around the farm.

It also made them realize they should give said lord and master some instructions... or else tell him to wait until she gets back! It also suggests that because he has such a capable helpmate, hubby has all too often lost touch with some very important parts of the business which he needs to know. Oh, he can get by for a couple of weeks, but if something serious or permanent happened to Mama, he'd be in a heck of a mess.

Peculiar

Likewise, with each woman having her own peculiar (word chosen intentionally) filing and storing system, only she can find those all-important documents such as the deeds, insurance policies, social security numbers, etc. My little lady points out that, in all the years we have had a safety deposit box, I've never once used it. She's right. She does what needs doing with it.

I'm sure there are a great many other things that the gals had in mind that their husbands needed to know or be refreshed about.

It's a great compliment to many of the farm wives that they are so competent in their role as secretary-bookkeeper-file clerk-executive-banker that their husbands can and do leave all or most of these very important parts of the business to them. All we need to do is add one more job to their already never-ending list... that of keeping Dad posted and updated on those jobs that he has delegated to his capable life-partner.

American Agriculturist, July, 1971

by M. A. Parsons

SPRAY PAINTERS

Here are a couple of letters on itinerant painters:

"You will be interested to know that another 'gyp-artist' barn roof painter has been in this area.

"Yesterday, while out fixing fence, my son and I heard a horn blow at the house. We went up to find two men in a new two-tone green Ford pickup, Alabama license number. Their offer to paint the barn with aluminum spray paint at a special price of \$5.75 per gallon or thereabouts was very obviously a fake deal, so I sent my son in for pencil and paper while I talked with them. As soon as they saw me writing their license number, they took off like scared rabbits!"

• • •

"Monday, May 10, toward evening, a man with a new green pickup truck and a paint tank wanted to spray my barn. I told him I didn't want it done. He said, 'I want to demonstrate it.' He moved in and went right to work. I imagine it took half an hour. He didn't go on the roof at all and only covered certain parts of the sides.

"Afterward, he came and told me it was \$245.00. I was here alone and he more or less threatened me, so I didn't know what else to do but give him the money. I paid him cash."

It is especially maddening when these "gyp-artists" threaten elderly people who are alone.

We can only suggest that a person get a good description of the car or truck and the license number, and report it immediately to the state police. Also, when the painter began working without our elderly subscriber's permission, he should have called a law officer or a neighbor to come and help him.

CHINCHILLAS

"In January, I signed a contract with a company in the Midwest and paid almost \$4,000 for ten chinchillas . . . 8 females and 2 males. I was to receive registration papers, feed for one year, and helpful hints from time to time.

"I cannot get them to send registration papers, my feed is almost gone, and I have been trying to get them to replace one animal that the male won't go in with.

"Do you think you could help?"

We contacted the Better Business Bureau and the Office of the Attorney General in Iowa. Judging from the information we received, this firm appears to be in very serious financial trouble, and it is our understanding they have been indicted for mail fraud.

After we checked on the company, their representative called on our subscriber, brought her a replacement animal, food, and a book. She told him the salesman had promised free feed for a year. He said that was not customary but, if the sales-

American Agriculturist, July, 1971

man promised it, they would supply it.

At the time she signed the contract, the company also promised to "buy-back" animals, and we asked our subscriber if they keep this promise. So far, she told us, none of the breeders in the area has been in business long enough to find out.

Raising chinchillas is a very specialized business and not a quick, easy way to make money. There are a great many legitimate chinchilla breeders in the country, who raise their own animals on their ranches and sell their pelts on the open market through auction companies.

The Federal Trade Commission, however, estimates that there are at least 200 promoters actively selling false hope to the public, with some doing between \$1 million and \$3 million of business annually . . . and altogether bilking the public at an estimated rate of \$50 million a year.

These promoters exaggerate the profits to be made, the ease of raising chinchillas, and their fertility. The promoters seldom raise their own animals or sell pelts on the open market. They buy stock from professional breeders and sell to individuals at a good profit.

If you think you might be interested in breeding chinchillas, we suggest that first you send 10¢ to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. Ask for Federal Trade Commission Consumer Bulletin No. 3, "Advice for Amateurs Who Expect to Breed Chinchillas for Profit."

THANKS

"I am writing to thank you for your item in the March issue concerning the Arrow Greeting Card Company. In February, we received some literature from them in reference to cards, wrapping paper and other items. We ordered 26 boxes of cards and sent a bank money order for \$13.53.

"We waited over a month and then wrote to them, but we never had a reply. I checked with my bank and they said the money order had not been cashed. I showed them the article in your magazine and they gave me back the money.

"If I had not seen this item, I would not have not known about them. I guess we were one of the lucky ones, not to lose our money!"

CAN YOU HELP?

Mrs. S. N. Swartzentruber, R. #2, Box 125, Dover, Delaware, 19901 is looking for the book "A Flower for My Mother," published by Henry Holt & Co.

• • •

Would like a copy of "Little Black Sambo." Write to Mrs. William Dise, Box 315, Middleville, N. Y. 13406.

Policies In Force Less Than A Year



Ralph Reynolds of DeLancey, N. Y. receives \$1700.00 from local agent, Bob Utter of Delhi, N. Y. Mr. Reynolds took out his policies only nine months 28 days before his serious accident. He was clearing a large stone from a field — raising the stone with a crowbar so his son could put a chain around it, the bar slipped putting a terrible strain on his back. He was taken to the hospital right away — they found he'd ruptured a disc. Nineteen days later he came home where he was laid up many more weeks. His combination of North American policies paid medical expense and weekly income benefits.



John Bartschi of Walton, N. Y. was paid \$1675.00. Local agent Bob Utter sold a combination of North American policies to Mr. Bartschi just nine months and nine days before the accident. Mr. Bartschi was driving tractor, towing a manure spreader. An oncoming car trying to slow down lost control on icy pavement and slid into the spreader throwing Mr. Bartschi forward off his tractor. Four months later he could go back to work having suffered a back injury — eleven days were spent in the hospital for special treatments. Mr. Bartschi also drew weekly income and medical expense benefits.

OTHER BENEFITS PAID

Roman C. Przysiecki, Altamont, N.Y. . . . \$ 220.00	J. Oes Jardins, Hubbardsville, N.Y. . . . \$ 160.00
Fell from ladder—broke back	Kicked by cow—inj. knee
Agnes C. Taylor, Andover, N.Y. . . . 715.25	Charles J. Sweet, Sr., Fultonville, N.Y. 1277.17
Auto accident—broke knee	Auto accident—broke jaw
Bertha Haight, Whitney Point, N.Y. . . . 1070.16	Carl A. Vaillancourt, Blossvale, N.Y. 150.00
Slipped, fell—broke knee	Caught in corn chopper—inj. hand
Mary Ann Salisbury, Otto, N.Y. . . . 1439.99	Milea Barber, Manlius, N.Y. . . . 257.10
Slipped & fell—broke leg	Kicked by cow—injured back
John Holmes, Delevan, N.Y. . . . 1276.65	Jonathan Yerkes, Canandaigua, N.Y. . . . 208.00
Hit by tractor fender—inj. leg	Stepped on by cow—inj. ankle
Arthur McDermott, Jr., Genoa, N.Y. . . . 407.27	Ray. M. Labanowski, Pine Island, N.Y. 567.76
School Bus Accident—broke foot	Lifting machinery—inj. leg
Claude E. Krieger, Cato, N.Y. . . . 216.00	John R. Kinsey, Holley, N.Y. . . . 1204.28
Tree limb fell—inj. head	Playing basketball—inj. knee
Russell R. Joy, Fredonia, N.Y. . . . 905.40	Anna Schallert, Milford, N.Y. . . . 1076.43
Slipped, fell—inj. shoulder	Stove exploded—burned hand, legs
Archie Winton, Sinclairville, N.Y. . . . 276.21	Clarence Burdick, Stephentown, N.Y. 1028.57
Struck by nail—inj. eye	Auto accident—broke rib, shoulder
Randy L. Sheive, Pine City, N.Y. . . . 225.97	David Stuart, Lawrenceville, N.Y. . . . 456.19
Playing football—broke arm	Auto accident—mult. injuries
Allan E. Peck, Bainbridge, N.Y. . . . 1300.00	Vincent Krake, Hammond, N.Y. . . . 311.95
Hit by tractor chain—injured head	Fell down stairs—broke leg
Romain E. Poissant, Champlain, N.Y. 1305.34	Karen Roennpapel, Esperance, N.Y. 129.28
Auto accident—inj. head, knee	Fell from bike—mult. cuts, bruises
Lee Gardiner, Marathon, N.Y. . . . 566.67	Mary C. Somerville, Romulus, N.Y. . . . 450.00
Truck accident—inj. scalp, thighs	Auto accident—whiplash
Peter Svegl, Bloomville, N.Y. . . . 2232.84	Archie C. Hall, Rexville, N.Y. . . . 699.56
Caught in PTO—broke arm	Kicked by cow—broke ribs
Mary A. Merwin, Hobart, N.Y. . . . 1900.00	Ernest Smith, Canisteo, N.Y. . . . 897.58
Auto accident—broke hip, leg	Caught in auger—broke thumb
Martin J. Eder, North Collins, N.Y. . . . 408.04	Gertrude D. Cranmer, Waverly, N.Y. . . . 1140.00
Hit by saw—cut hand	Struck door casing—broke thigh
Wilhelmina Francisco, Johnstown, N.Y. 147.71	Malcolm L. Bartlett, Dryden, N.Y. . . . 775.00
Cutting chicken—loss of finger	Caught in self-unloader—loss of hand
Floyd Rose, LeRoy, N.Y. . . . 1000.00	Beatrice Durham, North Rose, N.Y. . . . 1535.00
Caught in drive shaft—inj. leg	Truck accident—broke knee
Thomas Mezick, West Winfield, N.Y. . . . 483.20	David Sappa, Lyons, N.Y. . . . 1094.17
Stepped on by cow—broke foot	Auto accident—mult. cuts, bruises
Judith A. Becker, Poland, N.Y. . . . 312.97	Elwood Ripstein, Cowlesville, N.Y. . . . 1450.00
Auto accident—inj. hip	Bale fell off wagon—injured back
Beulah Beller, Carthage, N.Y. . . . 586.90	James C. Patton, Sr., Milan, Pa. . . . 1565.00
Unhooking wagon—injured teeth	Kicked by cow—broke hip
Carl J. Horton, Philadelphia, N.Y. . . . 180.00	Stanley Szymanowski, Waterford, Pa. 423.04
Kicked by cow—inj. back	Caught in power take-off—inj. finger
John J. Luchsinger, Boonville, N.Y. . . . 836.68	Theodore Schanzlin, Washington, N.J. 406.00
Caught in saw—inj. hand	Tripped over hitch—inj. thigh
Esther Ulrich, Castorland, N.Y. . . . 1235.00	Frank Caruso, Swedesboro, N.J. . . . 1932.13
Auto accident—whiplash	Truck accident—injured chest
Howard Boyd, Wadsworth, N.Y. . . . 362.17	Nelson Claffin, North Ferrisburg, Vt. 788.02
Animal bite—inj. thumb	Ran over by truck—broke ankle

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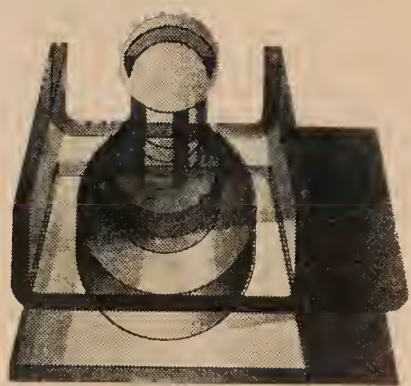
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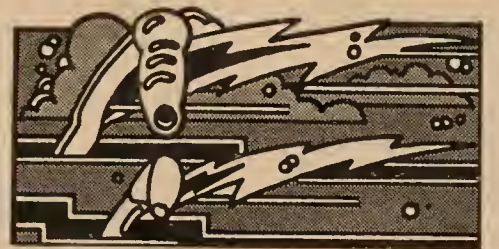
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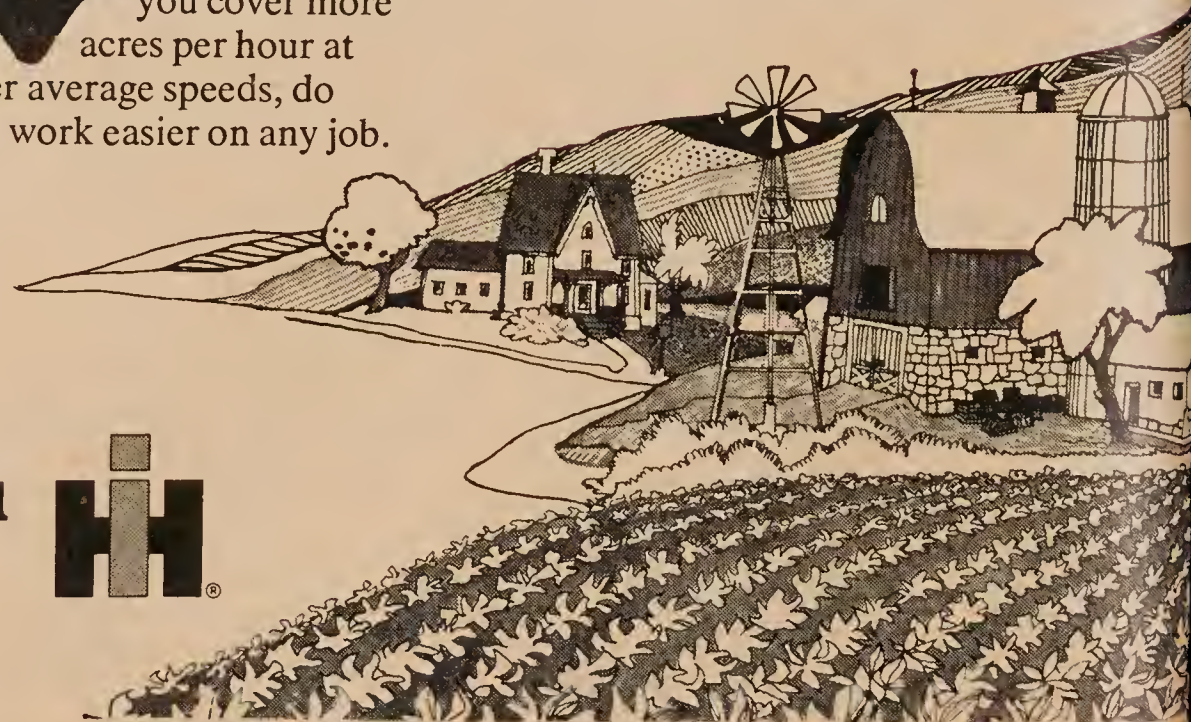
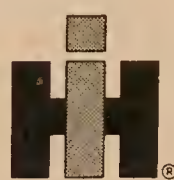
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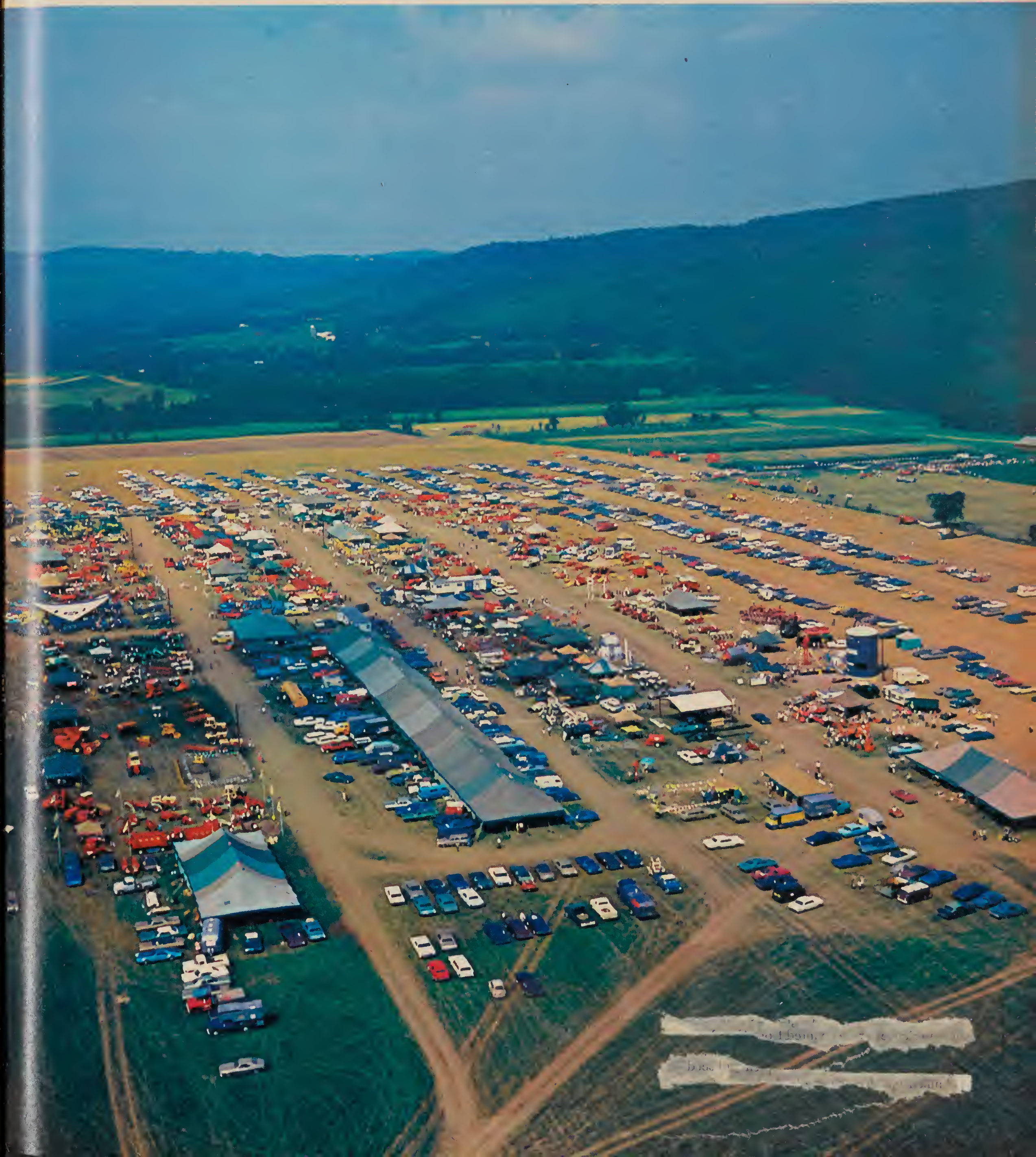
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AUGUST 1971

American Agriculturist

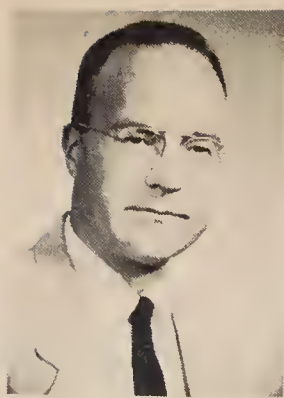
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EDITORIALS

by GORDON CONKLIN



DARK HORSE

By gum, I've had to rejigger my guesstimates as to presidential sweepstakes entries for 1972. Here I've been lining up at the starting gates such names as Nixon, Kennedy, McGovern, Humphrey, and Muskie... but another should obviously be added.

That name is Jim McHale, Secretary of Agriculture in the Keystone State. Almost from the day he began his work as Secretary, Jim has been waging a bitter campaign of denunciation directed at the present administration at Washington... expressed in speeches, as well as in the Pennsylvania Department of Agriculture's "Weekly News Bulletin," and in Department news releases. The words sound just like speeches from a presidential candidate.

Some critics have been so unkind as to point out that the written messages are prepared and mailed at taxpayer expense... and these same folks mutter darkly that flailing wildly at distant "enemies" is all too often a cover-up for ineptness at dealing with problems nearer home.

Anyway, it looks as though Jim is going to depart from the traditional administrative role of a Secretary of Agriculture, and become the Northeast's Martha Mitchell! The fireworks should be exciting... and, who knows, maybe they will lead to national recognition.

THE UNCONQUERED PLAGUE

You know, the "balance of nature" can be awfully hard on man. For instance, I note in the most recent annual report of The Rockefeller Foundation the comment that more than **200 million people** in rural areas of the tropics suffer from a disease called schistosomiasis.

This chronic, disabling disease is caused by a water-borne parasitic worm that destroys the tissues of internal organs and slowly cripples its victims. Freshwater snails are necessary for the cycle of development of the organism that can eventually infect humans.

There are several ways to attempt helping these millions who suffer from this dread affliction... two of those ways involve chemicals. An array of medicinal chemicals for treatment of those already infected are being tested... other chemicals are being evaluated for their effectiveness in ridding water of the snails.

I wish that every person who gets emotionally uptight about using chemicals could live in the tropics for at least a few months... and learn firsthand the facts of life about the "balance of nature"... schistosomiasis, and all the rest.

POPPY PUSHER

What would you think if AMERICAN AGRICULTURIST published a series of articles on how to grow the opium poppy? Amidst all the current concern about the drug scene, I suspect such a series would not only stir great controversy, but might be illegal as well!

However, AA did publish such a series of articles entitled "Opium Culture" in the April, May, and June issues of 1970. In-depth instructions are provided for growing, harvesting, and processing the crop... and growers' management experiences are recounted from New York and Pennsylvania.

One grower reported, "I sowed plenty of seed and thinned out, leaving the best plants, leaving the others as greens, and feeding the pig. Do

not be alarmed... they are very nice when young, full as good as beets or spinach."

In those days, of course, most of the opium produced in the U.S. was used for medicinal purposes. The Turned-Off People were yet to come... and young folks then just didn't have the money to start the habit. However, some of the old bound volumes of AA did include a few advertisements for special compounds to help people kick the opium habit.

Times change... and now the U.S. tries to purchase the Turkish opium crop to eliminate it from the possibility of addicting more Americans. Who would guess that, in 1870, opium was considered as just another alternative enterprise among northeastern farmers?

THE KILOWATT KILLERS

I visited another enormous windowless poultry house the other day... and marveled at the complicated electrical components that make things run. As I marveled, I also pondered the growing confrontation between the suppliers of electrical power and their gadflies, the various conservation groups blocking the construction of generating capacity.

Most of the new mechanical developments on the farm and in the home demand more energy. Windowless poultry houses are dramatic examples, of course, but the list is endless... silo unloaders, automatic yard lights, fans, air conditioners, small electric tractors, etc.

Even as power demands in the city and country have soared, some conservationists have insisted on reviews and re-reviews ad nauseam of the plans for almost every new generating facility... whether nuclear, fossil-fueled, or hydro. As a result, we now have the inevitable brownouts and power outages. The situation has become so bad that a member of New York's Public Service Commission has suggested that no electricity be provided for new buildings in New York City put under construction after July 1.

Farmers **must** have electric power to operate their businesses... some farms I visit have 400-amp electrical entrances, where once a 100-amp service was considered sizable. Between 1960 and 1970, the average farm in the U.S. more than tripled its annual use of electricity.

The collision between growing electrical needs and the ZPG (Zero Growth Potential) people will probably become even more heated. Farmers need more than ever to stand up and be counted concerning the need for expansion of generating facilities!

KEEP IT FARMING

Across the Northeast, interest in preserving open space runs high. And it finally has begun to dawn on many non-farmers that farming not only preserves desirable open space... but that it's an industry paying real estate taxes on the open space!

The most widely-accepted legislative method of encouraging farmers to keep their land in agriculture is some form of present-use assessment... the requirement that agricultural land be assessed on the basis of its use in farming, rather than on its potential value for some alternative use.

Connecticut, New Jersey, Delaware, and Maryland have legalized some form of prefer-

ential assessment for farmland... joined just this year by New York State. Maine, Massachusetts, New Hampshire, and Pennsylvania are in varying stages of attempts to move in the same direction. Massachusetts, for example, saw its legislators pass this year (for the second time) a proposed constitutional amendment that will go to Bay State voters in November and, if passed there, will make constitutional the farmland assessment legislation yet to be proposed.

How is the preferential taxation route working out? Researchers writing in Rutgers Experiment Station Bulletin 830 report that 14 of 20 county agents interviewed in New Jersey claim that the Farmland Assessment Act slowed sales of agricultural land for other uses. Nearly as many believed that taxes of participating landowners had been reduced by farmland assessment... important in a state where real estate taxes per acre on farmland are the highest in the country.

My advice to farmers is to sell present-use taxation of farmland on two basic virtues... preservation of taxpaying open space, and the encouragement of an important economic industry, and in that order of priority. Non-farm voters are unusually receptive right now to the environmental approach... recognizing that agriculture provides not only the food essential to human life, but also the landscape and soil stewardship so necessary to the quality of life.

And the blunt facts of life are that farmers generally need tax relief in rapidly-urbanizing areas if they are to continue farming. Furthermore, if desirable open space is to be retained at convenient distances from major population centers, then non-farm people will have to offer farmers tax incentives to keep it there.

NO SUBSTITUTE

The dissenters certainly can't claim they are being ignored. In print, and on television, hardly a day goes by but what some bitter critic of "the Establishment" says his thing, and at great length.

Some young people piously state that they are avoiding business... including farming... and industry because they reject the "hypocrisy and materialism of American life." Their follow-up often is that, "The young people of today want to do more than make a living."

Bless their sheltered hearts, we all want to do more than make a living! The people making such lofty statements are often 25 years of age, and have been in school all their lives... drawing sustenance from the system which they scorn... but as yet having made no investment of their own sweat in the work of the world that requires most of the time allotted to the rest of us.

Somehow, it doesn't occur to these people that somebody has to milk the cows, create the electric power, and repair the television set. These things are "givens" in their narrow world... assumed to be flowing forth from some automatic and endless horn of plenty.

I remain hopelessly committed to the old-fashioned idea that there is no substitute for constructive participation when it comes to accumulating understanding and wisdom... and no substitute for hard work in the attainment of worthwhile objectives.

THAT REMINDS ME...

A fruit grower, who sold most of his production through a roadside stand, was collared by the town gossip.

Patiently, he listened to her stream of words for awhile... but finally excused himself to wait on the next customer.

Noting that she had left, he commented, "She can sure talk your ear off! Why, she's been clocked at a consistent 140 words per minute... with gusts up to 180!"

American Agriculturist, August, 1971

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Mary CraigAssistant to Editor
Harold HawleyContributing Editor
Del R. HallAdvertising Manager
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August brings two great shows to the Northeast . . . Empire Farm Days (see page 26), and the New York State Fair (see page 18). Cover scene shows Empire Farm Days, the largest event of its kind in the Northeast.



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of leaving corn
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"I got mad. I'd work all year to raise a good crop. Then I'd combine and leave bushels of profit on the ground.

"There had to be a better way, and I went shopping for it.

"This Allis-Chalmers Gleaner combine is what I found.

"It's the only one that's totally designed to get right down under that crop. And it gets it out!

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Owners also like two-stage separation and exclusive two-fan cleaning that helps put more corn in the bin. And swing-down concave for fast, easy clean-out and adjustment.

Now we've added something new...low profile corn heads that get you in under even the most tangled crop.

Maybe it's time you started looking for a better way to combine.

Your Allis-Chalmers dealer has 3 of them for you to consider.

With a choice of 39 corn heads. Plus a highly flexible Corn/Soybean Special that can save you extra money.

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MILWAUKEE, WISCONSIN



Doc Mettler Comments on:

WOUND CARE

THE sight of a field of buckwheat in blossom always makes me think that summer is nearly over. I don't know if this is because the blossoms look like frost, or just the fact that buckwheat is about the last thing to really bloom in abundance before fall.

At any rate, it is no indication of what August will be like. As I have mentioned before, this month...

by its variations in weather... can make the cases a veterinarian sees differ from one year to the next as summer differs from winter.

Last month, we talked about first aid to animals, and since a hot, damp August can mean problems in healing wounds, we should follow up with some suggestions about the aftercare of wounds.

Presuming you have called your

veterinarian and he has treated your horse, cow or pet for a serious wound, what should you do then? First, of course, ask him exactly what he wants done, if anything... should the animal be in or out, and does he expect to see the patient again to remove stitches or check on the condition of the wound? Supposing, however, the wound was not serious enough to call your veterinarian, what then?

Protection from infection is the first consideration. This can best be done by using small amounts of antibiotic powder instead of severe caustic products, such as tincture of iodine. The Furacin spray mentioned last month is my favorite, but your own veterinarian may prefer something else.

Next consideration this time of year is to prevent the fly maggot infestation to which deep wounds, or wounds to long-haired animals such as sheep, dogs or cats, are particularly vulnerable. With the dog or cat, the best protection from flies is confinement to a cool, dry place (not under the back porch).

Repellents

Large animals can be sprayed with any of the various screw worm repellent compounds. These, too, you can obtain from your veterinarian. Ordinary fly sprays are too irritating to wounds. Remember that maggot-repellent compounds should not be used on dairy animals because of objectionable odors, and possible residue in milk. As in the use of all chemicals and drugs, read and follow the label, particularly where milk production is concerned.

For years there have been on the market various compounds... called "healing oils"... that repel flies and are supposed to promote healing. Small amounts of these may be all right, but modern medicines are apt to be better. Often the oils themselves cause hair to fall out around a wound and will even blister if not washed off.

Healing


Speaking of healing compounds brings up the type of wound healing. A clean, aseptic wound that heals without infection and pus is said to have healed by first intention. This is seen as an example in a surgical wound. The less "stuff" put on a wound of this sort, the quicker it heals.

Second intention healing occurs with some infection and pus; most wounds are in this category. In second intention healing, the judicious use of antibiotics and healing compounds is indicated.

Third intention healing involves granulation tissue (proud flesh). Here some healing stimulation is required, but care is needed not to overstimulate a wound to produce too much granulation.

The use of any agent to promote healing is restricted by what is known as regeneration fatigue. Often three days of one type of compound, followed by three days of another, and so on, will keep a wound healing faster than using the same one for two weeks.

(Continued on next page)



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American Agriculturist, August, 1971

For proud flesh or granulation tissue, I feel that the old familiar caustics... such as copper sulphate and silver nitrate, or in some cases even iodine crystals... are indicated. These should be used only on a veterinarian's orders and under his direction.

Wounds to cows' feet nearly always need this type of product, and the foot should be kept bandaged and dry. This means confining the cow to a clean, dry stall. Don't blame your veterinarian if a cow's foot doesn't get better if you insist on leaving her out in the mud!

Washing wounds is more often overdone than underdone. Giving a filthy wound a good cleaning with mild soap and water the first time it is seen is good, but after that, dry-wiping with clean cotton around the edges of the wound to remove pus is better than scrubbing the entire wound and washing hair, dirt, etc., into it.

Deep wounds may need to be irrigated. Your veterinarian will tell you what to use, depending on the location of the wound. Here, too, a three-day period of one product may be long enough.

Bandages

Protecting wounds (other than of the feet and legs) with bandages is more often overdone than not. A wound needs air to heal, and will do better open and protected by repellent against flies than it will if it's covered by a bandage that keeps infection in and oxygen out.

Dogs and cats lick wounds and... if they don't overdo it... will keep them clean. Your veterinarian will furnish protective collars if he thinks licking or chewing will become too much of a problem.

Horses may need to be cross-tied or kept in straight stalls to stop them from licking. With cows, licking is seldom a problem... the few cases I have seen were where a wound was covered with bandages or a blanket and then removed.

Various sprays to make a "synthetic bandage" on wounds are on the market today. These have their place, but if an airtight seal is put over an infected wound, anaerobic bacteria (growing where there is no air) flourish. Tetanus is the most spectacular of these, but they are all bad. Again, I would rather see a clean wound exposed to clean air.

For scrapes, scratches and abrasions common to horses and cows,

the old purple healing compounds are good, but don't overdo them. The use of various greases... from vaseline and wool fat (lanolin) to bear grease... may have a place, but too often heavy greasy products keep out air, collect dirt, and cause more infection than they prevent.

Where skin dries out too much and cracks, a product containing lanolin may be indicated; your veterinarian will furnish or recommend one. Often I have seen a horse with supposedly slow-healing wounds and found that after cleaning off all the dirt-caked grease, healing oils, healing powders, etc., the wounds only needed a little air and time to heal.

Wounds to cows' teats rate a special article all by themselves; you may remember that I have dis-

cussed them before. Check with your veterinarian if a flap needs trimming or a hole needs stitching. Twice daily nursing care is very important. Every dairy farm should have on hand a variety of products to use on the everyday cuts, scrapes and scratches. These can best be obtained from, or recommended by, your veterinarian.

Prevention

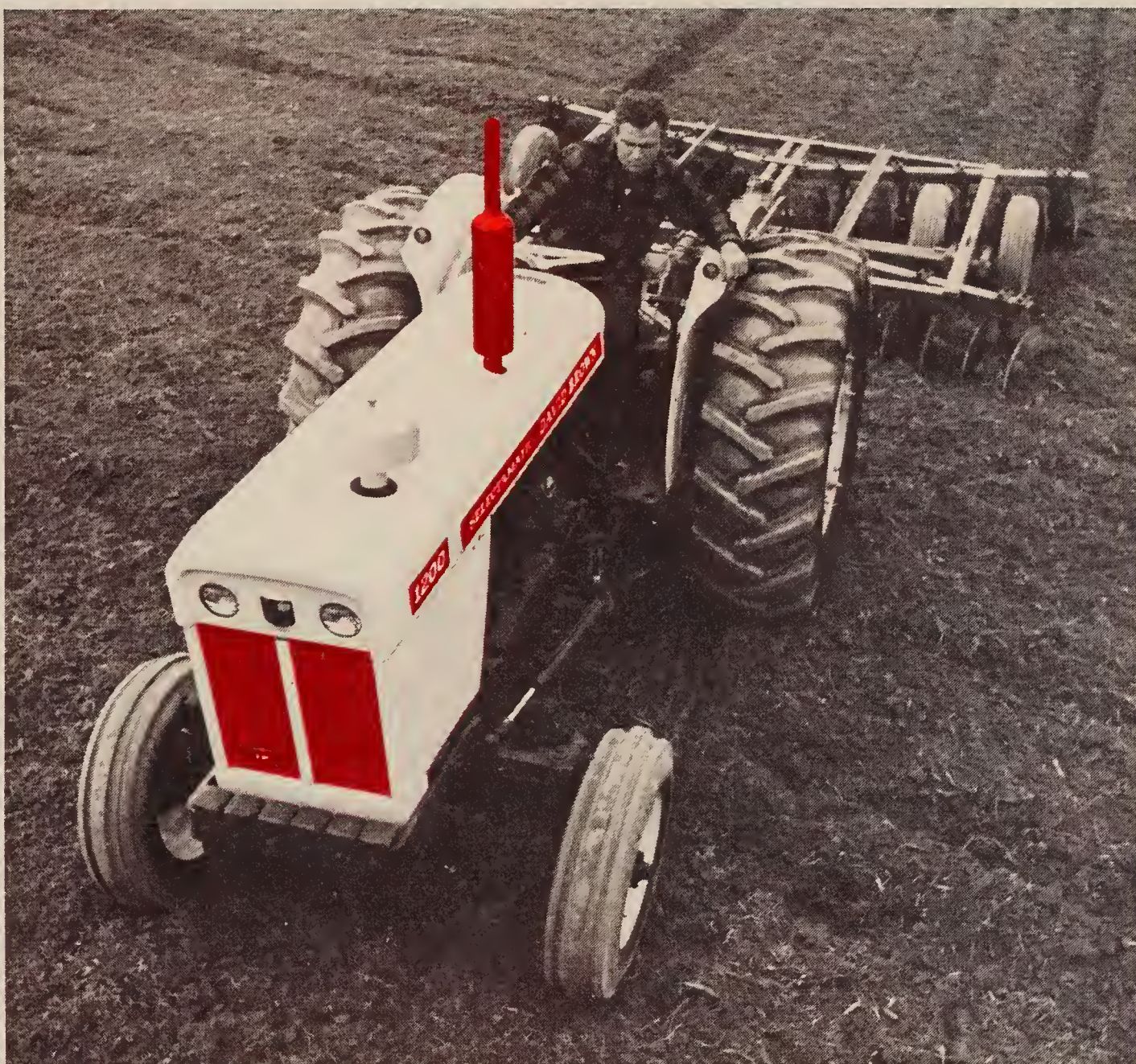
With wounds, as with disease, prevention is more important than treating or aftercare. Constant policing of areas where cattle and horses are pastured or confined... to remove loose wire, brush and trash... will prevent many of our common injuries.

Some of the most serious injuries

are from farm machinery parked or stored in pastures and yards, or under sheds where animals are housed.

More wounds are caused by barbed wire... or more correctly, the misuse of barbed wire... than anything else. A tight, well-constructed fence, kept in good repair, seldom causes trouble. Most barbed wire cuts are from loose strands, or from fences so poor that an animal is tempted to climb through. Spanner or "Texas" style gates made from barbed wire should never be used where mature dairy cattle, or horses of any age, are pastured or confined.

Caring for wounds on animals can be tedious and sometimes difficult. The results are the best measure of how well you did the job.



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American Agriculturist, August, 1971

FORESTRY



Chestnut Blight — Now and then from here and there come reports that the American chestnut is making a comeback. It's true that such trees are sometimes found alive and well, and living in a remote corner of some woodlot or forest. Some may attain a pretty fair size and age, but sooner or later, they succumb to the same old blight that destroyed so many thousands of their well-loved predecessors.

Latest report is from Allegany

County, where a sizable chestnut tree that was thriving and healthy two or three years ago is now on its last legs. Initials carved on one side of the tree, and some defacing on the other side, made prime openings for the blight spores to enter.

Efforts continue, however, to find a hardy strain of American chestnut that can resist the blight.

Conduct Code — The newly-formed NYS Timber Producers Association is a non-profit organization made up of loggers and pulpwood cutters from Oneida, Lewis and Cayuga counties. Purpose: to help landowners manage their woodland resources and practice conservation.

A code of ethics and membership list can be obtained by writing to the Association at P.O. Box 134, Boonville, New York 13309.

Good Mulch — The U.S. Forest Products Marketing Laboratory reminds green thumbs that hardwood bark, when applied correctly, is an ideal organic mulch... easy to apply and maintain, relatively inexpensive, and neat and attractive.

There are other uses, too. It makes good paths and walkways, and a border of bark along the sides of a house will prevent those ugly, hard-to-remove mud spatters during a rain.

For a picture story entitled,

"Mulching With Hardwood Bark" write to: Northeastern Forest Experiment Station, Upper Darby, Pennsylvania 19082. Ask for Photo Story No. 3.

Trees — Alex Dickson of the Department of Natural Resources at Cornell University, comments on the role trees play in making life more pleasant for us.

"During the major portion of its life, a tree consumes large quantities of carbon dioxide from the air and releases large quantities of oxygen into the air. However, if a tree is allowed to die and decay, the surplus oxygen produced in its lifetime will eventually be used up in the decay process. In addition, the carbon dioxide which was consumed in life will be released in death to reduce the net atmospheric benefits to zero."

"However, where timber can be harvested and prevented from decaying, there will be a net enrichment of the atmosphere. For every ton of wood produced, trees release a ton of oxygen and consume 1½ tons of carbon dioxide."

"Put another way, an acre of vigorous tree growth will produce four tons of oxygen per year... an amount sufficient to support 100 people. If New York's 17 million forested acres were free from death and decay, their net oxygen production would support some 300 million people."

Growing Hardwoods — Reports indicate that 1971 may be a record year for the number of tree seedlings, particularly black walnut, planted by private landowners. For those interested in hardwood forestry... on either a large or small scale... there's a great amount of printed information about planting, weed control, pruning and general forest management. To get a list of some of the free bulletins and booklets available, write to: Larry R. Fry, Director, United Hardwood Forestry Program, P. O. Box 321, Columbia City, Indiana 46725.

Let It Grow? — One way to treat a timber stand is to ignore it... simply let it grow. In time it will produce usable timber. Many small woodlands in the Northeast are treated according to the let-it-grow principle today.

How well does this treatment stack up against alternative treatments in returning a profit to the owner? Forest Service scientist David Worley has made a thorough economic study of the let-it-grow treatment; his findings indicate that its profitability depends mainly upon the age of the stand and the timber markets available.

As a guide for forest managers, Worley's evaluation of the let-it-grow treatment has been published as USDA Forest Service Research Paper NE-157, "The 'Let-It-Grow' Treatment for Timber — Is it Economically Worthwhile?" Copies are available from: Information Services, Northeastern Forest Experiment Station, 6816 Market Street, Upper Darby, Pennsylvania 19082.

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PICKLED CORN

by J. I. Miller*

THE harvesting of high-moisture corn has become increasingly common and practical in the Northeast, as well as other parts of the U.S. The use of chemical preservative such as propionic acid, if effective, would permit the storage of the high-moisture grain in an open bin. It would also give the same flexibility as feeding dry corn.

This procedure would be especially attractive to cattlemen with relatively small numbers of cattle who cannot justify large capital investments in equipment or storage, and who feed rather limited quantities of high-moisture grain each day.

Some research and field use of propionic acid... mainly for preserving wet barley... have been reported by B.P. Chemicals (U.K.) Limited. This company also sponsored limited work in Canada during 1970. So far as is known, the experience at Cornell as reported here is the first conducted in the U.S. on the use of propionic acid to treat high-moisture corn.

The amount of propionic acid required for preservation is believed to be directly proportional to the moisture content of the grain. Suggested application rates have been calculated for oats, barley and wheat (B.P. Chemicals, 1968). No treatment rates have been established for corn but, at Cornell, it was considered advisable to use the suggested amounts as for the other grains. For example, at 25-percent-moisture content, the recommended propionic acid treatment rate is 1.0 percent, and at 30-percent-moisture content, the rate is 1.25 percent by weight.

Controlled

The flow rates of the acid and corn must be carefully controlled to ensure distribution of such a small quantity of liquid throughout the grain. The most suitable point of applying the spray of acid is just prior to the entry of whole grains into an auger. The rate of flow of whole grain through an auger is relatively constant for a particular grain and the action of the auger will help produce adequate mixing of the acid and grain.

However, it was determined through trial that high-moisture ground ear corn with some husks, as used in the first experiment (1969-70), was not moved at a uniform rate by an auger and two elevators in series were used with success. In a second experiment (1970-71), field-shelled high-moisture corn was spray-treated just ahead of an auger.

Propionic acid may be purchased in 415-pound drums. The cost in the fall of 1970 was 22 cents per pound. The acid was removed from the drum and spray pressure obtained by a small centrifugal pump equipped with a pressure relief valve, pressure gauge and a diaphragm check valve.

One or two regular wide-angle

spray nozzles were used for the spraying. All spraying equipment used was adapted from available equipment. However, special spray applicators, such as are on the market in the U.K., would be more convenient to use... and likely more accurate.

It is essential to get good surface coverage of the grain, as any untreated high-moisture grains in contact will mold. It is also important to use precautions in handling propionic acid, as it is caustic and will burn the skin.

The operator should wear eye goggles, a respirator and rubber gloves when in close contact with the acid. All metal equipment should be thoroughly washed with water after use and/or untreated grain run through the equipment to remove any residue of the acid.

The moisture content of the grain must be known or closely estimated. In these trials, some of the treated grain was as high as 38-percent-moisture, but less acid is needed and therefore lower cost results if the grain is lower in moisture. For example, in these experiments the range of moisture content varied from 27 percent to the 38 percent, and little or no spoilage was experienced. However, the cost of the propionic acid per ton of grain varied from \$4.75 for the drier corn to about \$7.25 for the higher-moisture level.

All treated corn was stored in open wooden bins inside the beef cattle barns at Cornell, and protected from the weather. However, any metal surfaces which the grain may contact during storage should be treated with an anti-corrosive paint or covered by plastic film.

Urea was added to the propionic acid for one batch of grain. By careful mixing... and the addition of a small amount of water... enough urea went into solution to raise the protein equivalent level of the urea-treated corn by about 2.0 percent. There were indications that the urea-propionic acid solution was more corrosive than propionic acid alone.

In general, good preservation for as long as two years or more was obtained by the treatment of high-moisture corn with appropriate amounts of propionic acid. There were no handling problems from freezing in the bin, or during grinding and mixing the treated grain. In two experiments, yearling steers fed liberal amounts of the treated corn showed no evidence of lower palatability, and required no adjustment to the treated corn.

While propionic acid is an organic acid produced in the rumen of cattle and important in rumen metabolism, the relatively small amounts provided by the treated corn would likely result in little added nutritive value. In these initial experiments, the feeding value of the propionic-acid-treated corn was considered at least equal to untreated high-moisture corn.

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SOUTHERN CORN LEAF BLIGHT has been found in most states growing appreciable acres of non-irrigated corn ... including the Northeast. However, intensity of infection ... and final effect on yields ... are not yet clear. Still looks as though big national corn crop is on the way.

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SWEET CORN GROWERS will find brochure F-43172 handy for information on controlling insects. Write: Union Carbide Corp., P.O. Box 1906, Salinas, California 93901 for a free copy.

USING CREDIT PROFITABLY is subject of new film sponsored by Farm Credit Service. Arrange for "Credit, A Capital Idea" through any Production Credit Association office.

MAREK'S VACCINE has increased rate of lay and livability in hens. One northeastern grower comments, "Best thing for the egg industry is to find another disease!"

Eggs from Mexico have become price-depressing problem to U.S. poultrymen ... so charges United Egg Producers. Number of laying hens south of the border has soared in recent years.

Poultry Survey Committee predicts October-December egg prices (large) to average 40 cents, 38 cents in first quarter of 1972.

STILBESTROL (DES) is lined up in sights of Senator Proxmire ... he seeks to ban its use as growth-stimulator for beef cattle. Consumerists are beating hard on DES as one of those "terrible chemicals." Most studies credit DES with at least 10 percent saving in beef-feeding costs.

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WOOL PRICES in Australia are at the lowest level in 24 years ... and story is pretty much the same worldwide. Without domestic price-support program for wool, U.S. producers would be bleating in anguish!

REVISED REGULATIONS by U.S. Department of Transportation exempt from federal rules driver of trucks with gross weight of under 10,000 pounds ... and allow 18-year-olds to drive trucks within 150 miles of the farm (regulations had previously raised age limit to 21).

FERTILIZER PRICE INCREASES have been announced by Standard Oil of Ohio (Vistron), effective August 1. Involved are basic fertilizer products such as anhydrous ammonia, non-pressure and low-pressure ammonia solutions, and prilled urea.

The industry has long been in state of over-production and depressed prices, but signs point toward some rise in fertilizer prices.

ALAR continues to gain favor among northeastern fruit growers for fruit-drop control ... and beneficial side effects of finish and firmness. It is especially effective on McIntosh ... should be applied 60 days before anticipated harvest.

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Bath Frank Helm Agricultural Equip.
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Clymer Carlton Damcott
Cobleskill Harry Rubin & Son, Inc.
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Gouverneur Sweeney Equipment Corp.
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Lyndonville Plummer Sales & Service
Lyons Falls Cogar Equipment Corp.
Montgomery Chambers Ford Tractor Sales
Newfield Rudolph Mazourek
Norfolk Lavigne Bros. Garage
North Syracuse Frank Tullar

Norwich

Nunda
Patterson
Phelps
Pleasantville
Port Jervis
Richfield Springs
Riverhead
Tully
Valatie
Weedsport
Westfield
Whallonsburg
Whitney Point
Yorkville

Rhode Island

Ashaway Rhode Island Harvesting

Vermont

Barton
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Philbeth Farm Repair
Phelps Farm Service, Inc.
C. V. Pierce Co., Inc.
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& Supply
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ALLIED FARM EQUIPMENT
EASTERN DIVISION

GT GRAIN DRYERS

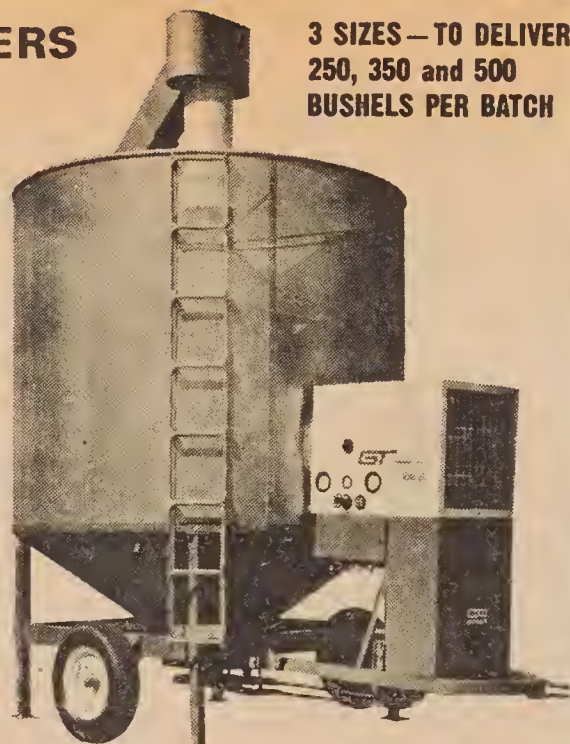
with a G-T dryer...
you can reduce field losses
and improve grain quality!

WORLD'S LARGEST SELLING
RECIRCULATING BATCH GRAIN DRYERS

3 SIZES—TO DELIVER
250, 350 and 500
BUSHELS PER BATCH

GT TRANSPORT AUGERS

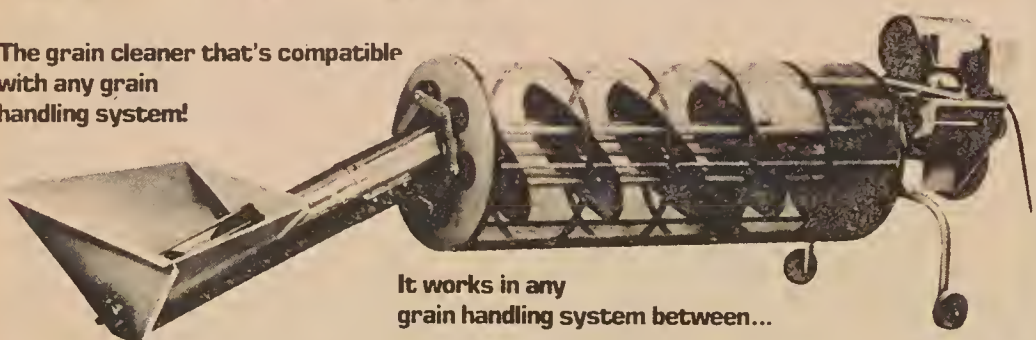
6" - 8" - 10" - 12" Diameters
28' to 63' Lengths
Gas - Electric - Hydraulic - PTO



SEALED PRE-LUBRICATED POWER HEAD
SWINGING MOTOR AND ENGINE MOUNT
MATCHED FLITING
SEAMLESS WELDED TUBE
TELESCOPING TRANSPORT

GT GRAIN CLEANER

The grain cleaner that's compatible
with any grain
handling system!



It works in any
grain handling system between...

- field and drying system
- auger equipment and storage
- drying equipment and storage
and between holding bins!



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MANUFACTURERS OF FARM AND INDUSTRIAL EQUIPMENT

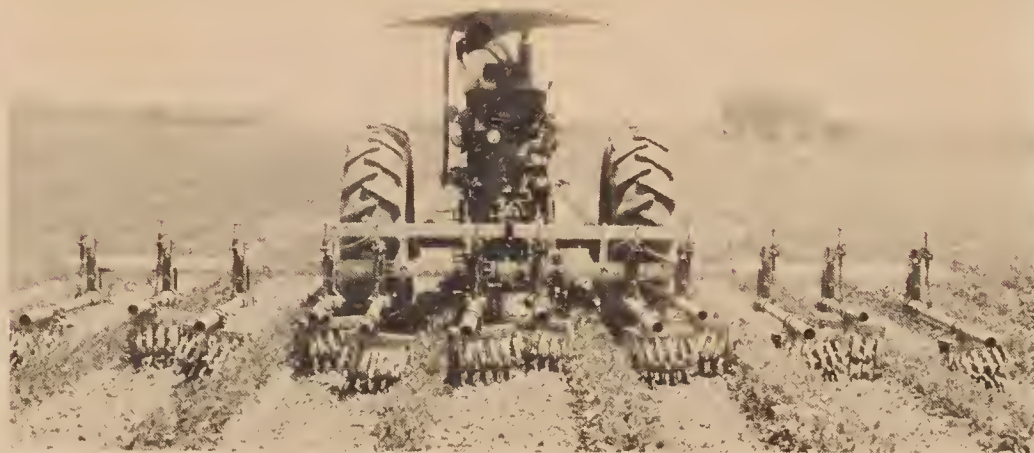
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- * FAST EFFECTIVE INCORPORATION
 - * THOROUGH WEEDING AND MULCHING
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ANY INCORPORATION
 - * OR CULTIVATOR USE
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ON THE SHOULDERS AND OVER THE ROW
- PUT THE CHATTANOOGA ROTOWEEDEEER
IN YOUR LINE TODAY...
BETTER SELLING FEATURES...ADDED SALES!

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SCHWARTZ

A CHROMALLOY AMERICAN SUBSIDIARY

Model 1450-Row Crop ECONOMY LOADER

(Model 1350-Utility not shown)



**A new, low-priced
loader that protects your tractor's frame**

The new Schwartz 1350/1450 Economy Loader has a full-length sub-frame to absorb stress. It mounts front and rear, with cross bracing below, to transmit rear axle thrust directly, and to protect your tractor's body from buckle and twist—stress that otherwise can cause loose joints and oil leakage.

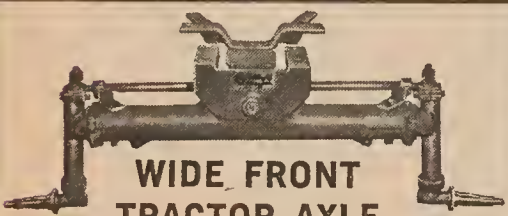
Both the 1350 (Utility) and the 1450 (Row Crop) work from your tractor's hydraulic system. Both break away a ton-and-a-half, lift 1,800 pounds eight feet high, and dig below grade. Easy to hook up and detach. 40" manure fork standard, with optional attachments for loading grain, sand, snow, etc.

The Economy Loader is ideal for 3-4 plow (or smaller) row crop or standard tractors, and utility tractors.*

*Schwartz has Big Farm Loaders for larger tractors.



LESTER PRAIRIE MINNESOTA SIOUX FALLS, S.D. HASTINGS, NEBR.



WIDE FRONT TRACTOR AXLE

Anti-tip protection for sharp, safe turns. Ideal for use with front loader. Gives better flotation in soft fields and gets rid of mud clogging for good.

Two adjustable models. Comes complete; easy to install. Uses present wheels and bearings; matches tractor color.

Gentlemen:

Please send me literature on the equipment checked below.

☐ Loaders ☐ Axles ☐ Truck hoists ☐ Wagon hoists

Name _____

RFD or Box _____

City _____

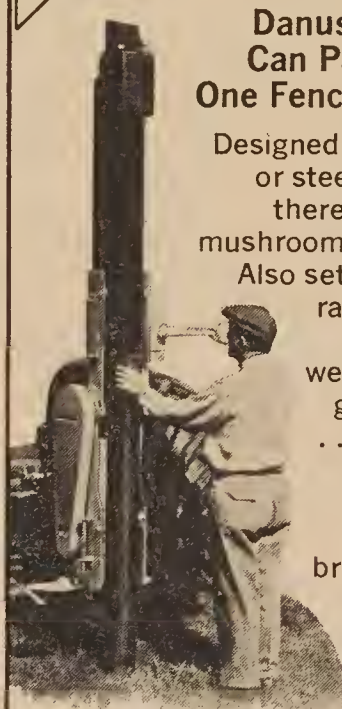
State _____

Zip _____

Danuser Post Driver Can Pay For Itself In One Fencing Operation.

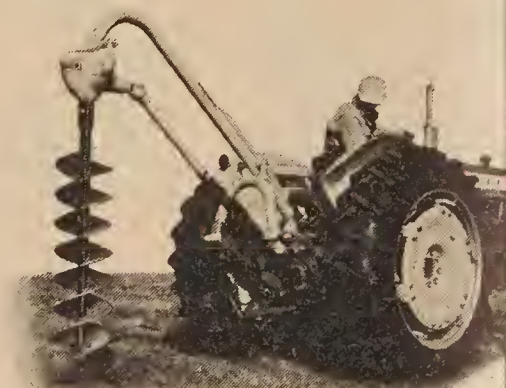
Designed for driving wood or steel posts, because there's no splitting or mushrooming of post tops.

Also sets highway guard rails, snow fences, pipe for shallow wells, vineyard and gardening stakes... reversible ram with head attachment can be used for breaking concrete.



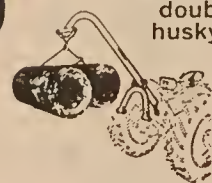
Dig Holes Sitting Down With the Danuser Digger!

It's possible to dig hundreds of holes per day with the Danuser Digger, all from the tractor seat. The Danuser Digger is easily installed, three point hitch mounted. Adapter kits for other type hitches. Auger sizes from 4" to 30" diameter.



LET DANUSER DO THE TOUGH JOBS

The Danuser Digger can also double as a husky crane boom!



Save High Labor Costs With 4 in 1 Versatility.

The Danuser all-purpose Blade and attachments are designed for versatile operation that can help you cut earth-moving costs. The Danuser Blade and attachments: levels, backfills, spreads stone, gravel and topsoil, scarifies, scrapes, drags and performs many other landscaping jobs.

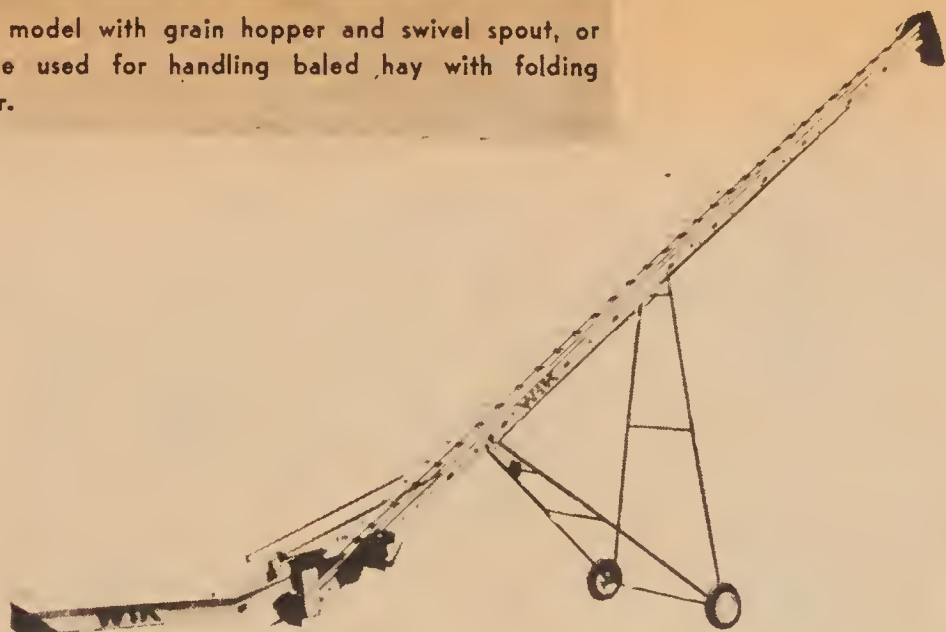


DANUSER
MACHINE
COMPANY

500 East 3rd Street
Fulton, Missouri

Write today for full information on all Danuser's labor-saving Farm & Industrial Equipment.

49 ft. model with grain hopper and swivel spout, or can be used for handling baled hay with folding hopper.



WELCO INC.
HERINGTON, KANSAS
(913) 258-3613



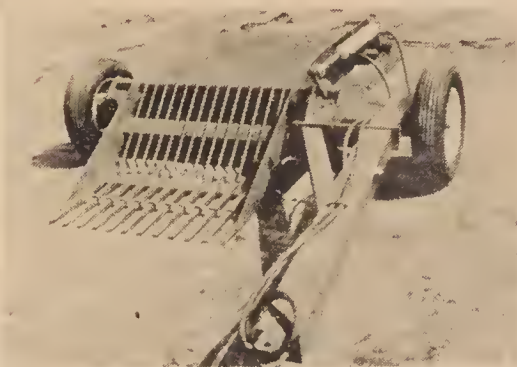
The WIK® bale conveyor because of its 1" 16 gauge SQUARE TUBING DESIGN has the strength to give years of trouble free operation. The 16 gauge square tubing frame has the highest strength to weight ratio in the industry, allowing longer, straighter conveyor systems to be made.

LEON

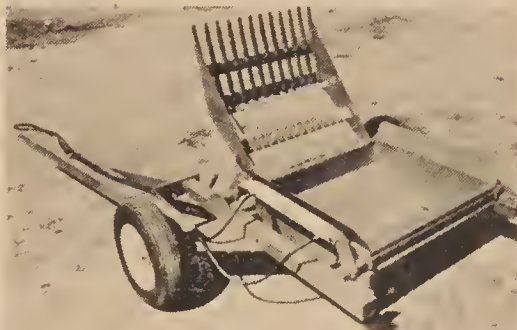
D-43 ROCK PICKER

Pick your rocks effectively with ease!!

- Bolt on picking tines
- Special pressure controlled floating fork
- Adjustable depth control
- 43½" picking width
- Hopper capacity to 3000 lbs.
- All hydraulics and hoses included
- Complete with new tubes and tires
- Economical to own
- Field tested and patented
- 1670 lbs. of rugged strength



PICKING POSITION



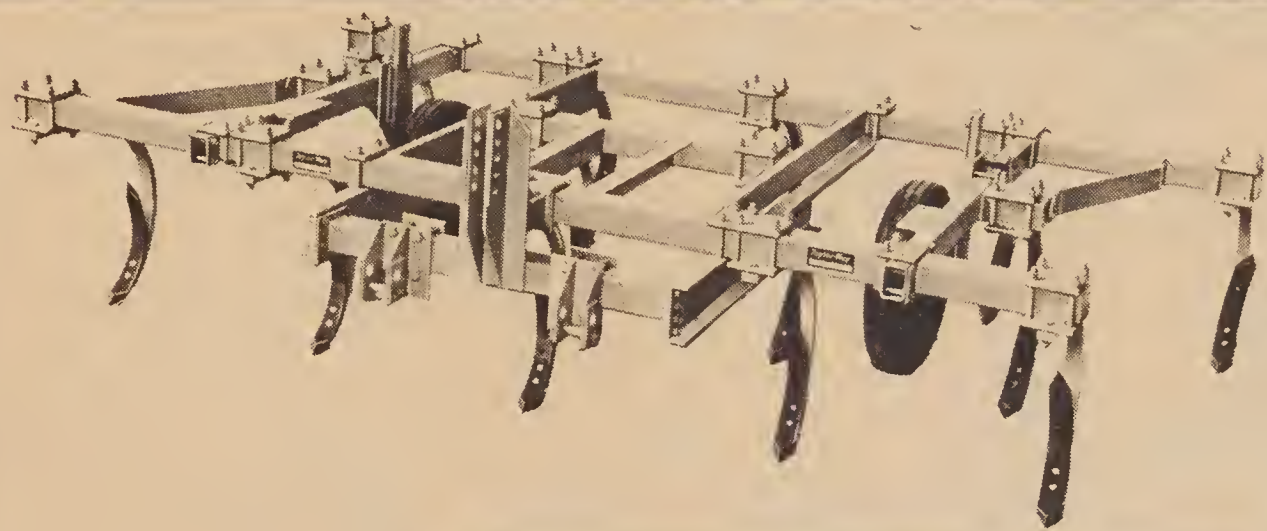
LOADING POSITION



DUMPING POSITION

Revolutionary new concept gives you big capacity at low cost... no selector valves, no troublesome trip ropes, no dual hydraulics are required to operate this rock picker and yet only one pivotally suspended cylinder operates the fork and hopper independently. Ruggedly field tested and built with extra heavy duty material throughout.

LEON'S MANUFACTURING CO., LTD.
135 YORK ROAD EAST
YORKTON — SASKATCHEWAN — CANADA



Taylor-Way

CHISEL PLOWS
LIFT & PULL TYPES
7' TO 17' CUTS

Our Specialty is Tilling Soil...

Tilling soil. Anything and everything connected with it is our specialty. And constantly improving the equipment to do it is our goal. So it holds together longer. Does a better job of increasing yield, conserving moisture and reducing erosion. So it outlasts everything but the barn. That's our philosophy. Build one thing better than anyone else. That's tilling equipment. That's the TAYLOR-WAY.

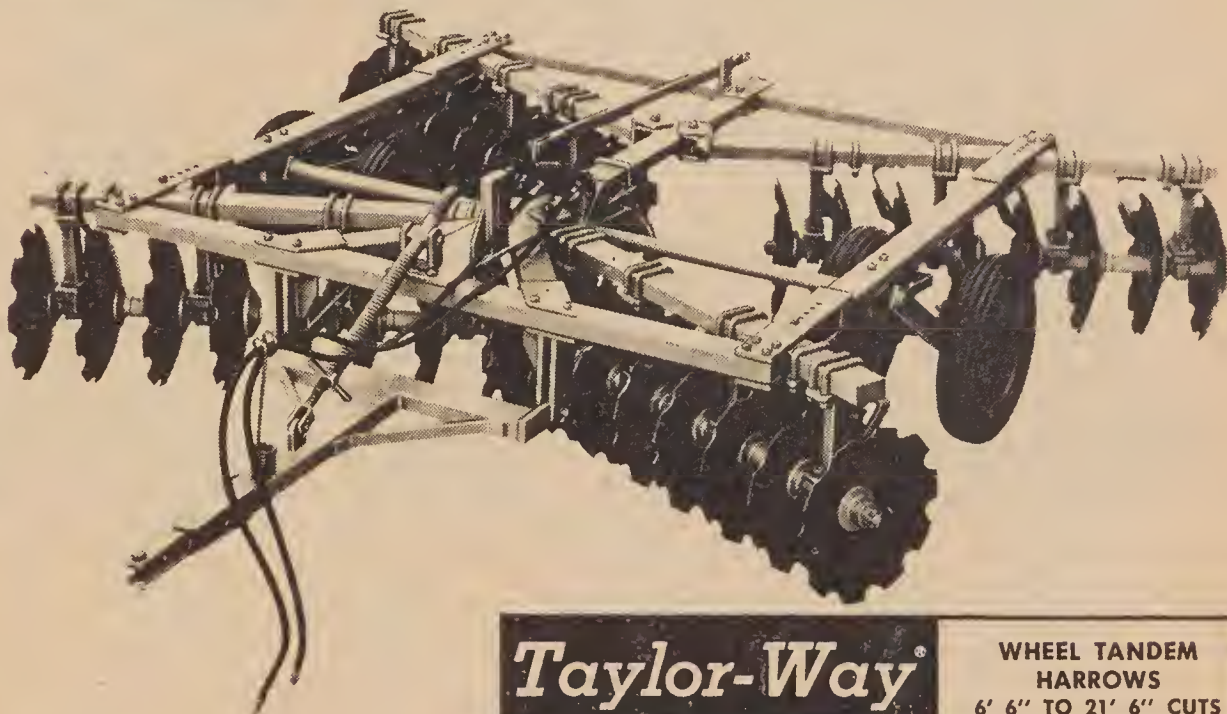
Take any TAYLOR-WAY Chisel Plow, sink it into the roughest soil conditions. The results are always the same: Durability and staying power to simplify any tillage job. Available from 7' to 17' cuts in two bar lift types and from 10' to 17' cuts in three bar lift and pull types with 22", 26" or 32" rigid or spring mounted shanks.

TAYLOR-WAY makes the heavy-duty harrows for those big, tough jobs! Heavy plowing and fast seedbed preparation to get the job done quicker and better. Wheel tandem harrows available from 6' 6" to 15' 2" cuts — wing type harrows up to 21' 6". Full 7½", 8", 9" or 10" disc spacing available to satisfy your precise tillage job. Best of all, they're built the quality way by TAYLOR-WAY to protect your investment in better farming.

WRITE FOR FULL DETAILS

TAYLOR IMPLEMENT MANUFACTURING CO.
ATHENS, TENNESSEE
PHONE (Area Code 615) 745-3110

Disc Harrows — Chisel Plows — Field & Row Crop Cultivators — Subsoilers



Taylor-Way

WHEEL TANDEM
HARROWS
6' 6" TO 21' 6" CUTS

SEE THE ALLIED EXHIBIT AT EMPIRE FARM DAYS



THE BIG VALUE BUY

Here is the greatest value in the land for the money. A brawny, reinforced blade for moving material quickly, easily. Angles, or reverses merely by lifting lock pin. Full 360° rotation of the blade, 7 angle positions forward, 3 for rearward travel. Tilts with tractor lift arms. Greatest capacity in its class. Reversible, heat-treated, sharpened cutter bar affords twice the life of ordinary models.

Choose from 4 rugged, dependable blades and interchangeable rakes job-matched for your tractor.



ALLIED 265 PORTABLE MILL MIXER ... BIG JOB CAPACITY, COMPACT DESIGN

Fatten up your livestock and your pocketbook with fresh, balanced rations from an Allied Mill Mixer. It's a small price to pay for big profits. New gravity hopper model now available at low price.



ALLIED®

FARM EQUIPMENT



STRONG AS IT LOOKS

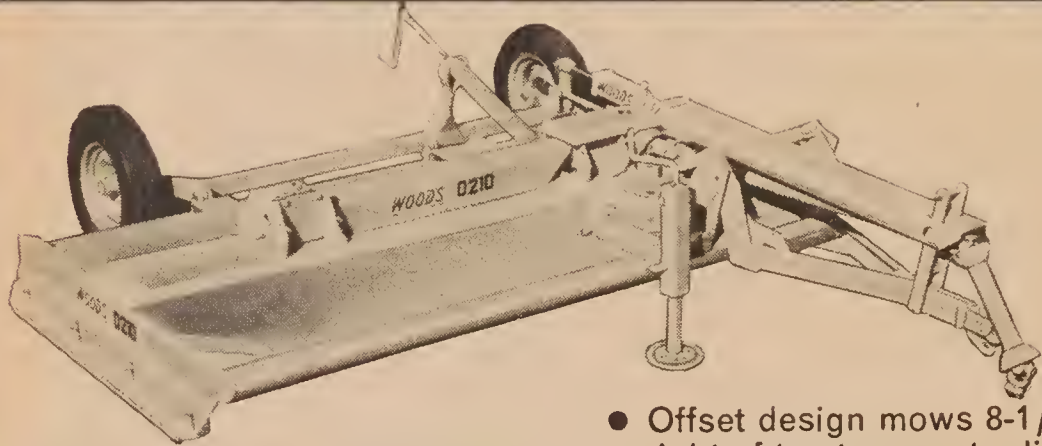
An Allied® Loader gives you stress-absorbing design, box main frame and sub-frames to match your tractor. And to match your needs for heavy-duty reliability. 3 models with quick 'n easy mounting for most tractors.

Ask your dealer about Allied Loaders.

NEW

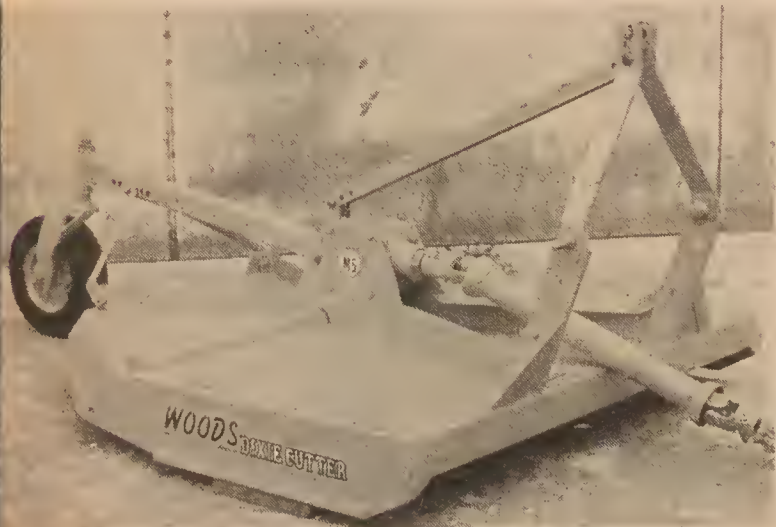
WOOD'S OFFSET MODEL 0210

The Rotary Cutter Designed For Orchard and Nut Grove Mowing and Pruning Disposal



TWIN BLADES ■ GEAR DRIVE
CUT 10 FT. SWATH

- Offset design mows 8-1/2' to right of tractor's center line
- Shreds pruning up to 3" Dia.
- Manual or hydraulic height adjustment
- Short turning radius — low profile



MODEL M5

"DIXIE
CUTTER"

- 5 ft. swath
- Gear driven
- Rear mounted
- 3 point hitch
- Fast hitch
- AC snap coupler
- For all mowing and shredding jobs
- For tractors from 15 to 60 horsepower (540 RPM PTO)

WOOD BROTHERS MFG. CO. DEPT. 99008
OREGON, ILLINOIS 61061 VICKSBURG, MISS. 39181

Save Time & Money— The Allied Way

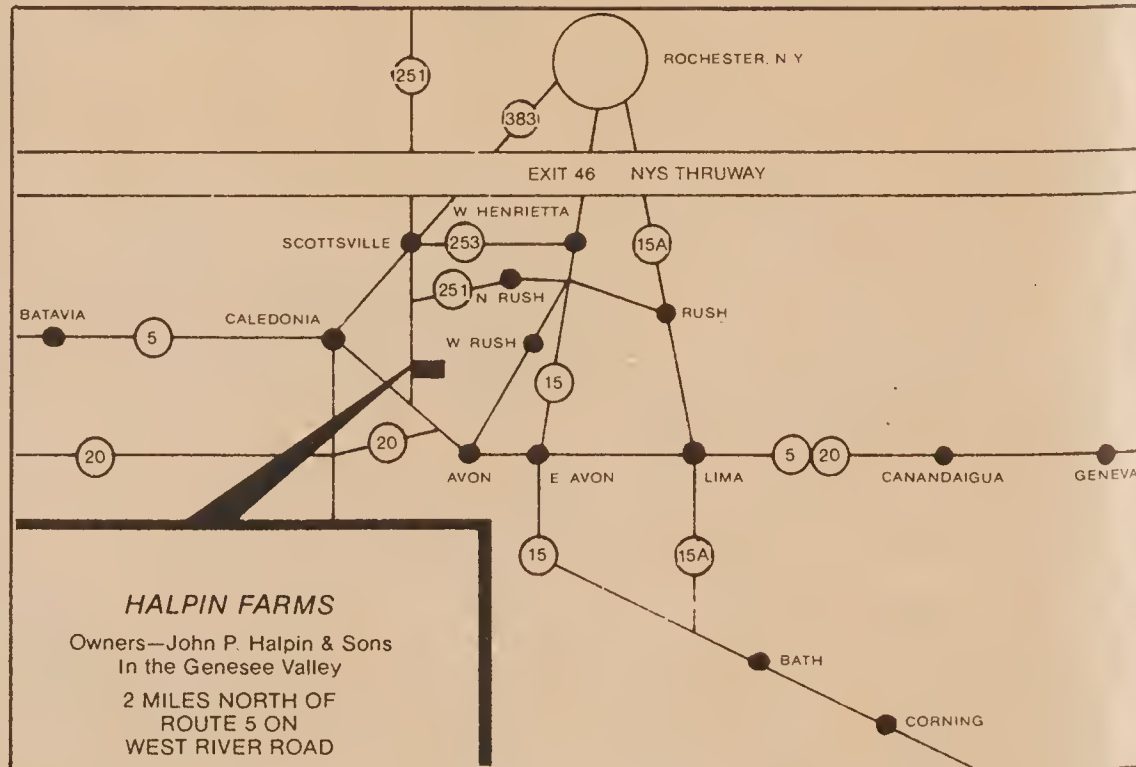
TO LOWER PICKING, PRUNING AND THINNING COSTS

Eliminate dangerous ladder scrambling and cut back-breaking effort with the new Allied Mark II Girette and Ackley Power Pruners and Saws.

The long Girette reach gets you safely up, inside and over most trees. New features, new options and the exclusive patented 39° Girette swinging boom let one man do the work of four or more. Racks for tools, hooks for picking bags eliminate back-breaking effort. Easy-to-use foot-pedal controls leave hands free to pick or prune as you raise and swing.



Empire Farm Days



August 10, 11, 12





This herb garden at Old Sturbridge Village grows more than 250 kinds of herbs. Each autumn the herbs are harvested by costumed workers. They are washed, dried, and used for a variety of purposes.

See the colorful beauty of FALL IN NEW ENGLAND

Each year more and more people are taking fall vacations when crowds are smaller and sightseeing is relaxed and more enjoyable. If you're planning a vacation this fall, we cordially invite you to join our **New England Fall Foliage Tour** from **October 1 to 9**. Since it's only a nine-day trip, you can go even if you've already had a summer vacation!

Our Fall Foliage Tour is a deluxe bus tour, and the cost is only \$316, which includes everything except one dinner, intentionally omitted to allow you your choice of Boston's fine restaurants. Also, this year you can join the tour at New York or Albany, and we hope this will be an added convenience.

After assembling our tour group, we travel through the colorful Berkshire Mountains of Massachusetts, and our first night is spent at Northampton Inn. The next day we visit famous Old Sturbridge Village and explore the 36 original buildings moved there from many sections of New England. Luncheon will be at Tavern-on-the-Green, and later in the afternoon we drive to Plymouth on Cape Cod Bay for overnight at Governor Bradford Inn.

The next day we visit Cape Cod's interesting villages, Falmouth, Hyannisport, Barnstable, Sandwich, and others. We will also see the many historic places around Plymouth — Mayflower II, Plymouth Rock, the Plymouth Wax Museum and Plimoth Plantation.

Historic Boston is our next stop, and sightseeing here will include all

the well known places in and around this famous city, including Lexington, Concord, Old Ironsides, and Harvard University's collection of glass flowers. We'll enjoy our luncheon at Longfellow's Wayside Inn, the oldest operating inn in the country.

Leaving Boston, we stop in Salem to see the Witch House and Nathaniel Hawthorne's "House of the Seven Gables." Lunch today will be at Rockport, on our way to Portland and the Sheraton-Eastland Motor Hotel. The next morning we pass beautiful Sebago Lake which covers 46 square miles and is one of the Pine Tree State's most popular resort areas.

Crossing the New Hampshire border, we find ourselves in the lovely White Mountains, one of the Northeast's most scenic areas. Mt. Washington and other majestic peaks of the Presidential Range tower above us as we travel through a fairyland of color. The autumn foliage changes with every bend of the road, and each new scene seems to surpass all others.

We'll tour the "Notches" — Pinkham Notch with its famous Shelburne Birches, Crawford Notch, Tuckerman Ravine, and Franconia Notch to pay our respects to the beloved "Old Man of the Mountains." We'll also ride up Cranmore Mountain on the Skimobile.

In Vermont we visit the Maple Grove Museum, the capital city of Montpelier, a huge granite quarry in Barre, and the Vermont Marble

(Continued on page 16)

Gordan Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Aloha Week in Hawaii _____ Eastern Canada-Bermuda _____
Spain-Portugal _____ Fall Foliage Tour _____
Grand European Tour _____

Name _____
Address _____
Zip _____

(Please print)

EMPIRE FARM DAY EXHIBITORS

(as of July 15th)

- Advanced Drainage of Ohio, Inc.
- Agchem Service Corp.
- Agricultural Mfgs. Corp. Dahlman
- Agri-Systems, Inc.
- Agway, Inc.
- A. H. Hoffman Seeds, Inc.
- Allied Farm Equipment
- Allis Chalmers Mfg. Co.
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- Amitol Co., Inc.
- Anchor Laboratories, Inc.
- A.S. & W. Products, Inc.
- Avco New Idea Farm Equip. Co.
- Babson Bros. Co.
- Barker Chemical Co.
- Beacon Milling Co., Inc.
- Bowerston Shale Co.
- Bridgeport Implement Works, Inc.
- Brillion Iron Works, Inc.
- Carlton Seed Company
- Castle Harvester Co.
- Central Petroleum Co.
- Charles B. Clay
- Charles Van Etten
- Chemagro Corp.
- Clay Equipment Corp.
- C. L. Haines Mfg. Co., Inc.
- Cornell Mfg. Co.
- Corostone Silo Co., Inc.
- Cummings & Bricker, Inc.
- Curtiss Breeding Service
- DeKalb Ag. Research, Inc.
- De Laval Separator Co.
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- Eastern Milk Producers Co-op.
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- Empire Silo, Inc.
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- Farmers Production Credit Assn.
- Farmhand, Inc.
- F. E. Myers & Bro. Co., Inc.
- Flying Dutchman, Inc.
- Ford Tractor Operations
- Gehl Company
- G. H. Grimm Co.
- Geigy Agricultural Chemicals
- Genesee Pump, Inc.
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- Girton Manufacturing Co.
- Gould Pumps, Inc.
- Grove Mfg. Co.
- Hesston of New York, Inc.
- Hinman Milking Machine Co.
- Hodgins Sales & Service
- Hoffman Seed & Grain Co.
- Independent Buyers Assoc.
- I. M. Prew-all Silages, Inc.
- International Harvester Co.
- Jamesway Div., Butler Mfg. Co.
- J. I. Case, Inc.
- John Blue Co.
- John Deere Co.
- John Reiner & Co., Inc.
- J. S. Woodhouse Co., Inc.
- Kerr McGee Chemical Corp.
- Koehring Farm Div.
- Lamco Mfg. & Dist. Co., Inc.
- Lockhart-Beldeck Group
- Lockwood Corporation
- Madison Silos
- Massey-Ferguson, Inc.
- McConnell Mfg. Co., Inc.
- Mighty Mobile Home
- Minneapolis-Moline Co.
- Monsanto Company
- M. J. Flynn Co., Inc.
- Na-Churs Plant Food Co.

(Continued on page 35)

**NO-NONSENSE
GUARANTEE**

**EMPIRE
FARM DAYS**
August 10, 11, 12

Get your
FANNY FLAG up.

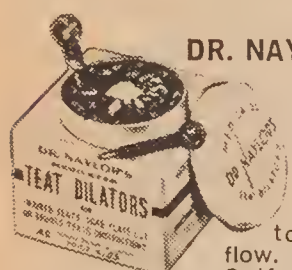
Meets Occupational Safety and Health Act Requirements.

AG-TRONIC, INC. HASTINGS, NEBRASKA

Time to check your DAIRY-CARE department?



Be sure you have these Dr. Naylor "dependables" on hand to help keep your dairy herd in top shape. Modern medication for modern animal care, these Dr. Naylor Veterinary Products are proven favorites with herdsmen across the land:



DR. NAYLOR'S MEDICATED TEAT DILATORS

With super-soft 2-Way Action . . . (1) Act mechanically to keep teat end open in natural shape—to maintain free milk flow. (2) ACT MEDICALLY—Sulfathiazole in Dilator is slowly released in the teat for prolonged anti-septic and healing action.

Large Pkg. (40 Dilators)—\$1.50

BLU-KOTE

Spray or paint it on! Effective in treatment of Cow-pox*, ringworm, skin abrasions. It covers wound with quick-drying, penetrating coating—to reduce pus formations, dry up secretions, control secondary infections*.

4-oz. Dauber Bottle—\$1.00
6-oz. Spray Bomb—\$1.29



UDDER BALM

A modern antiseptic ointment for udder and teats . . . stays in prolonged antiseptic contact to relieve soreness, reduce congestion. Softens udders and heals teats! The same soothing, softening ointment in which Dr. Naylor's Medicated Teat Dilators are packed!

9-oz. Tin—\$1.25

NEW

RED-KOTE®

for slow-healing wounds

Fast new healing help for wire cuts, scratches, burns, chafes, teat sores and other superficial animal wounds. Non-drying Dr. Naylor RED-KOTE fights infection—adheres, protects, soothes and softens. Easy to apply—with handy dauber in every bottle.



4-oz. Dauber Bottle \$1.50

STOP-A-LEAK

For cows' teats that leak milk. Constricts round muscles at end of teat. A liquid to apply over end of teat after each milking for a few days only.

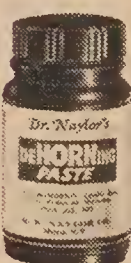
2-oz. Bottle—\$1.25



DEHORNING PASTE

Quick and economical method of dehorning young animals. One application over horn button is all that is required. May be used any time of the year. No cutting—no bleeding.

4-oz. Jar—\$1.25



At drug or farm stores or mailed postpaid:

H. W. Naylor Co., Dept. A
Morris, New York 13808

Dr. Naylor

VETERINARY PRODUCTS

"The Dependables for Dairy Care"

Food For The Spirit



by Robert L. Clingan

CARE . . . AND SURVIVE!

Students of our blighted environment have pointed out the "horrendous" consequences to man if he does not become alert to the hazards he has created for himself, and to the damage he has done to his surroundings.

According to the "Environmental Handbook" of the first Earth Day, we must stop the use of rivers and lakes, and the ocean itself, for the disposal of raw human and industrial waste. Otherwise, we will destroy our sources of usable water, reduce the areas suitable for outdoor recreation, and even destroy the oxygen-producing plants of the sea from which 70 percent of the oxygen on the planet comes.

But none of the pictures of doom will make us treat our environment as we should. More than fear must motivate us if we are to move quickly, effectively, carefully, and creatively to restore ecological balance to the world of nature we have thrown into imbalance.

New Relationship

What is called for is a new sense of the relationship between man and his environment . . . something the good farmer has always known about. The kind of relationship needed has recently been suggested in "A Declaration of Environment Rights" by the Rotary Club of Santa Barbara, California: "The ultimate remedy for these fundamental problems is in man's mind . . . not his machines. We call on societies and governments to recognize man as a member, not master, of the community of living things sharing his environment; to extend ethics to include man's contact with all life forms and with the environment itself . . . the whole environment, treating our own backyards as if they were the world and the world as if it were our backyard . . ."

The answer is to be found in a re-interpretation of the word "dominion," found in the Biblical creation stories. The Bible says that man has been given dominion over the

earth and all its lesser forms of life. In the history of man, too many people have interpreted this to mean the power and right to use the earth and all non-human forms of life to serve man, to increase his power, regardless of future generations . . . to take "free rein" in the manipulative use of his environment.

Instead, "dominion" should come to mean using one's environment as a gift of God, "the giver of every good and perfect gift." The word "dominion" should suggest stewardship, responsibility, accountability, and the love of God and His world.

Caring

Perhaps the most useful word to describe the relationship that should exist between man and his environment is the word "care." If we care enough, we will do whatever is necessary to restore the ravaged earth . . . and restrict ourselves and each other from despoiling it again.

In one of the television dramatizations during Earth Day was a youth carrying a sign based on a revision of a patriotic slogan. It read, "The Planet Earth, Love It or Leave It."

That is our choice today. We must care enough to survive!

Fall

(Continued from page 15)

Company's display at Proctor. We travel through the Green Mountains with a beautiful vista in store at almost every turn, as we end our New England vacation and head south for Albany and New York.

Like all AMERICAN AGRICULTURIST tours, this will be an escorted trip, arranged by our tour agents, the Travel Service Bureau of Needham, Massachusetts. We will be happy to send you a free copy of the illustrated itinerary; just fill out the coupon and mail it today.

Reunion Weekend

Our 1971 Get Acquainted and Reunion Mixer will be held in Hershey, Pennsylvania, "Chocolate Town, U.S.A." The dates are October 22 to 24. Come early on Friday (before 2:00 p.m.) and tour the world's largest chocolate and cocoa plant, the Hershey Foods Corporation.

There'll be a sightseeing tour of the Hershey area, the usual slide shows and travel films, plus the gracious hospitality, delicious meals, and beautiful surroundings of Hotel Hershey. Also, you'll be the first to know about our 1972 program of cruises and tours. The cost is only \$73.00 per person for the entire weekend, and we hope you'll be sure to join us.

More Fine Trips

Don't forget our Aloha Week Hawaiian Holiday from October 9 to 21. We'll visit four islands—Hawaii, Maui, Oahu and Kauai and be in Waikiki for all the Aloha Week festivities. Make your reservation now!

Also, there is still room available on two wonderful European tours—our Grand European Holiday (August 28 to October 6) and a trip to Spain and Portugal with the Royal Cities of Morocco included this year. Dates for this tour are September 9-30.

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Seeing is believing! No obligation!

Once you've seen the amazing "Pop-Up" Bale Loader work, you'll wonder how you ever got along without it. Load a row of your own bales on your own farm and see for yourself.



Manual Loader attachment also available.

- does the work of six good men
- handles round and square bales as fast as you care to drive, even on hillsides
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- no experience needed to operate
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All of this, and it pays for itself the first 5000 bales. Think about it and act now!

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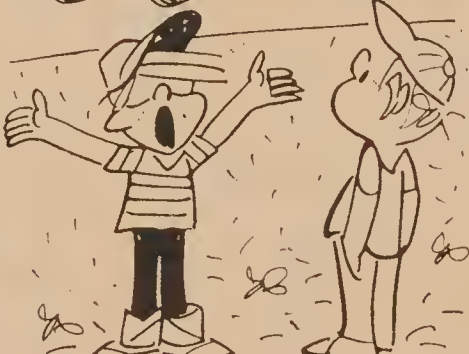
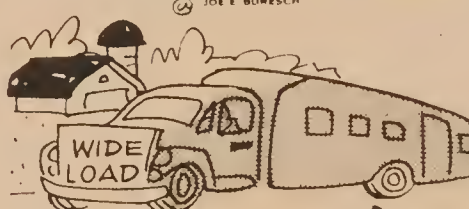
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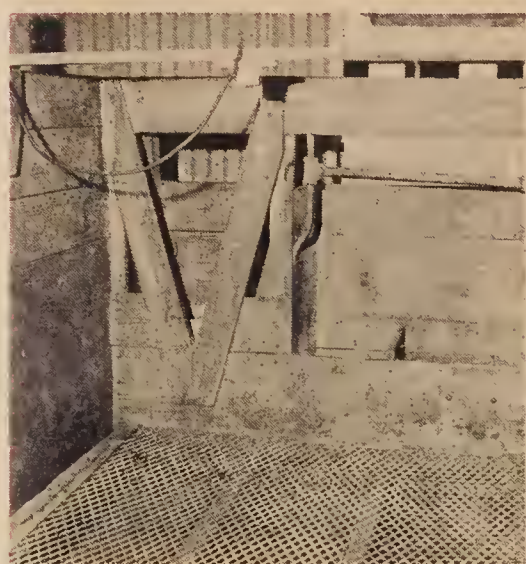
FLETCHER THE 4-H'R



"TWO YEARS AGO IT WAS GRASS-HOPPERS, LAST YEAR IT WAS CORN LEAF BLIGHT AND THIS YEAR IT'S MOBILE HOMES!"

HANDY on the Farm

Hot Table — Here is a handy shop welding table with part of the surface bricked over and the other half a grate. The table is framed with angle iron and the sides partly covered with sheet metal. The bottom of an oil drum . . . mounted on casters and holding water . . . is kept handy as a cooling tank.



Calf Pens — Calves are housed in pens fitted with removable floor sections . . . a welded angle iron frame covered with expanded metal. A partitioned manger holds the bucket of water and a milk bucket at feeding time so they cannot be tipped over, and grain and hay. An adjustable pipe neck rail adapts the manger to large and small calves. For those that may need heat, a cross bar can be fitted above the pen and a heat lamp used in it.

Box Stall — Individual calf pens, arranged in a row with alley along the front for easy feeding and along the back for easy cleaning, are arranged above a concrete floor. The space underneath can be flushed by hose. The floors are removable . . . each a frame covered with heavy netting. A small V-shaped stanchion holds hay in one end of the manger. A feed box, and section to hold a bucket, takes up the rest of the manger.



Latch — This clevis latches a two-way swinging gate that keeps cows from wandering in the alley when they come in or leave the barn at milking time. Since the gate is welded pipe, a block of square pipe was added to it to hold the latch . . . just two pieces of flat iron connected by a clevis of bent iron rod welded to them through the square pipe. A stop on one side keeps the latch from dropping.



Marker — A wheel from a junked iron-wheeled wagon or farm machine makes a good culvert marker, showing where the drop-offs are at the open ends. The hub was cut out, leaving an opening that would allow the wheel to be slid over the end of the culvert.



TEND-R-LEEN FEED / THE ORIGINAL NO-ROUGHAGE PROGRAM



Visit the Beacon display of Tend-R-Leen dairy steers at Booth 25 at Empire Farm Days.

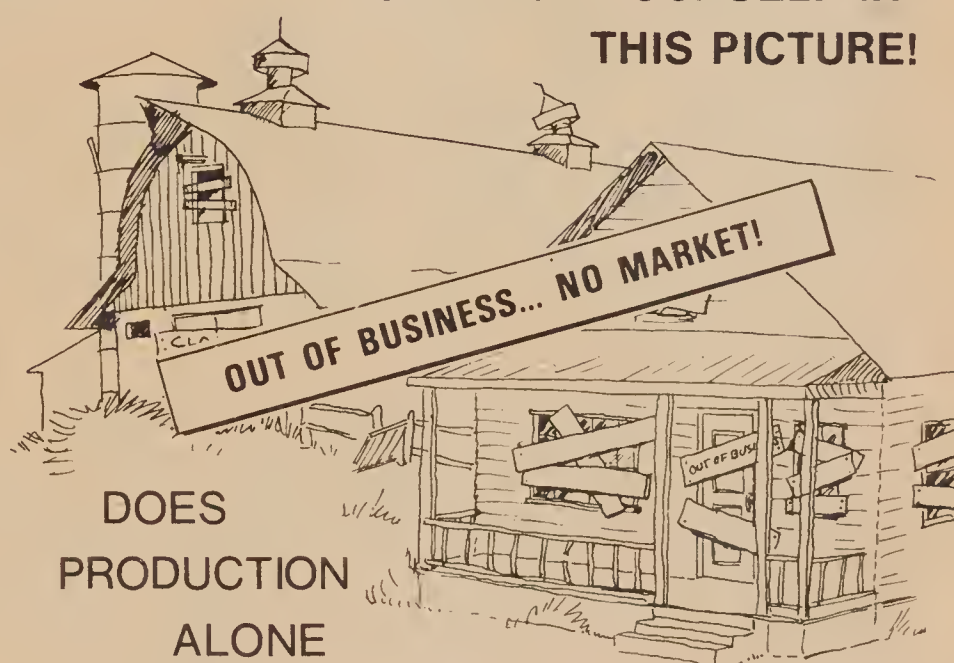
BEACON FEEDS

The Beacon Milling Company, Inc.

Headquarters: Cayuga, N.Y.

MR. DAIRYMAN...

**DON'T PUT YOURSELF IN
THIS PICTURE!**



DOES
PRODUCTION
ALONE

KEEP DAIRY FARMS IN BUSINESS?

YOU BET IT DOESN'T!

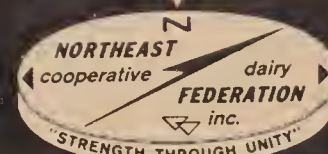
Adequate Marketing Facilities, backed by aggressive research in marketing techniques and product development are essential to increased sales.

Conclusion — Either dairy farmers must assume greater responsibilities for marketing their own products or the job simply won't be done in the farmer's best interests.

NORTHEAST DAIRY COOPERATIVE FEDERATION, INC. is moving ahead to see that this job gets done. Look into our program — you'll be glad you did.

**NORTHEAST DAIRY
COOPERATIVE FEDERATION, INC.**

428 S. Warren St.
Syracuse, N. Y. 13202



Telephone
474-6581

**"SEE THE NORTHEAST FEDERATION EXHIBITS AT THE
EMPIRE FARM DAYS AND THE NEW YORK STATE FAIR."**

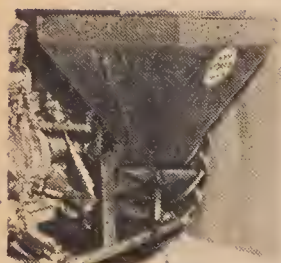
WIKOMI

Better Farm Equipment for Better Farming



WIKOMI HIGH SPEED ROLLING FENDERS

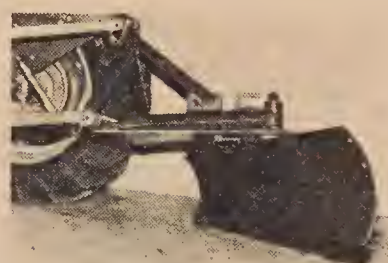
Use on any front or rear mounted cultivator
— Easy to attach • Cultivate faster • Save
Time. Fins will not pick up trash.



**WIKOMI
Broadcast Seeders**
Seed-Fertilize. Spreads
uniformly to 50 ft.



**WIKOMI
3-pt. Concrete
Mixers**
Big 1½ Bag—8 cu. ft.
Capacity.



WIKOMI UTILITY BLADES
Low Cost Grading, Leveling, Snow
Removal. 6 ft., 7 ft. and 8 ft.
models.



**STOCKLAND
Hydro-Scoops**
One Man Earth Mover,
Hydraulically Operated.
Speedy, Efficient, Eco-
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**WIKOMI
3-pt. Post Hole Diggers**
Heavy Duty — Longer
Service — Low Cost.



**WIKOMI 3-pt.
ADAPTOR KITS**
Modernize Your Tractor. Make It
Completely Versatile.

Other WIKOMI Farm Equipment:
Wikomi Elevators, Disc Harrows, Cultivators, Carry-
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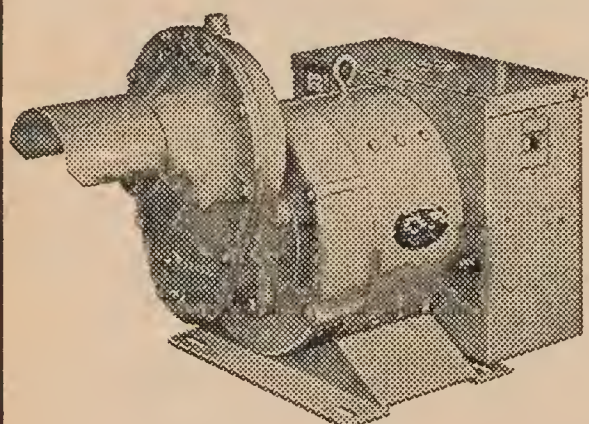


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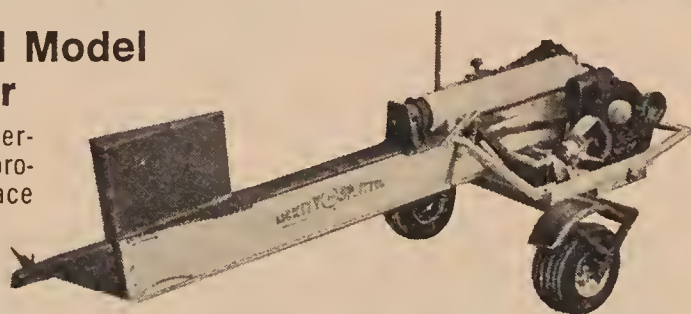
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NEW! Professional Model Lickity Log Splitter

Developed for the firewood merchant or industries who split production quantities of fireplace wood or other wood items from large diameter, tough, knotty and cross-grained logs.

Has 12 H.P. Kohler cast iron gasoline engine, starter, generator and battery. Patented automatic shift permits ram to travel in high speed, low pressure 6.5 tons. When extra power is needed it shifts automatically to low speed, high pressure, giving 55,000 lb. ram force.

The Professional is a shorter version of



the 60L Splitters used in paper mills, excelsior plants, veneer plants, stave and heading bolt mills, loggers, park departments who split over-sized logs into chipper size pulpwood, giving the firewood merchant same power and same rugged construction.

Write for complete details, no obligation.

PIQUA ENGINEERING, INC., DEPT. AA, P.O. BOX 605, PIQUA, OHIO 45356

Schedule of Events

NEW YORK STATE FAIR

Monday, August 30

Pre-Fair Beef Show

Tuesday, August 31

A.M.

- 8:00 Judging Sheep (wether)
Judging Market Barrows
- 9:30 NYS High School Marching
Band Competition—until 4:30
p.m.
- 10:30 Entertainment—The Harmoni-
cats, Nashville Brass, Contest of
the Combos—also 1:30 and 6:30
p.m. daily
- 11:00 Food Demonstrations—also at
12:30, 2:00, 3:45 and 5:45 p.m.
daily
- 11:30 "Investment in Tomorrow"
ecology film—also at various
times through the week
Flower Show Judging—daily

P.M.

- 12:00 Entertainment—Atlantic Fleet's
Seabee Drill Team and March-
ing Band—also 6:30 p.m. daily
through Friday
The Caldwells, Jonny Rivers
High Diving Mules—also 4:30
p.m. daily
Fashion Presentation—also 2:00
and 4:00 p.m. daily
- 1:00 "Weight Watchers" Program—
daily
4-H Fitting and Showmanship
Finals and 4-H Market Lambs
Horse Stakes:
Stock Western; Appaloosa Plea-
sure Championship; Arabian
English Pleasure; Half Arabian
Costume
- 1:30 Judging On-Foot Carcass Bar-
rows
NYS Spelling Bee
- 3:00 Entertainment—The Pickerings,
3 Elkins Sisters, The Association
—also at 8:00 p.m. Wednesday,
Saturday and Sunday
"Hints for Happy Traveling" —
daily through Friday
- 4:30 Golden Knights of the U.S. Army
Parachute Team—daily through
Thursday
- 5:00 Fashion Presentation, also at
11:00 a.m.—daily
- 6:00 Silent Movie Comedy—daily
- 7:00 Pleasure Horse Championship
Quarter Horse Riding Stake and
Championship
- 7:30 Jack Kochman Auto Thrill
Show—daily at various times
Photography Slide Exhibition—
daily through Sunday

Wednesday, September 1

A.M.

- 8:00 Guernsey, Brown Swiss, Milking
Shorthorn Judging
Sheep Judging—Hampshire
- 9:00 Judging Corriedale, Suffolk Sheep
- 9:30 Horse Pulling Eliminations
- 10:00 Women's Day Program
Open Steer Judging
Dairy Goat Judging
- 10:30 Community Starlight Chorus

P.M.

- 12:00 4-H Dress Revue—also at 2:00
p.m.
- 12:30 Service Awards Luncheon
- 1:00 Judging Hereford Breeding
Classes
Sheep Judging—Rambouillet and
Southdown
Judging Duroc Swine
- 2:30 "Mini" Talent Hunt Show
- 3:00 Swine Judging—Chester White
Entertainment—"Bread"—also
8:00 p.m.
- 7:30 Square Dance Festival
Judging Dorset Sheep

Thursday, September 2

A.M.

- 8:00 Judging Ayrshires, Jerseys
Judging Charolais Breeding
Classes
Swine Judging—Berkshire
- 9:00 Sheep Judging—Hampshire,
Cheviot
- 10:30 Judging Poland China
- 11:00 Harness Racing
- P.M.
- 1:00 NYS Purebred Dairy Cattle As-
sociation Calf Presentation
Judging Angus Breeding Classes
Judging Sheep—Oxford,
Shropshire
- 1:30 Holstein Judging—Male Cham-
pionship
- 3:00 Entertainment—Chet Atkins,
Floyd Cramer, Boots Randolph
—also 8:00 p.m., and on Friday
Judging Sheep—Tunis
- 5:00 Fashion Film
- 5:15 5-Gaited Amateur E.S.H.B.A.
Amateur Owner Hunter Ap-
pointment

Friday, September 3

A.M.

- 8:00 Judging Holsteins, Shorthorns
- 10:00 Morning Sing-a-Long
4-H Dress Revue—also 12:00
p.m.
- 10:30 Senior Citizens Brunch
- 11:00 Harness Racing
- P.M.
- 1:00 Champion Beef Carcass Auction
- 5:15 Open Jumpers, PHA Trophy
Sing Out Syracuse
- 6:00 Microd Races

Saturday, September 4

A.M.

- 9:00 Tractor Pulling Championship
- P.M.
- 12:00 "Man in Space" and "Journey
to Fra Mauro" films—also 3:00
p.m. Sunday
- 1:00 Junior Exhibitor, 3-Gaited Stake
- 2:00 Scenes from Shakespeare—also
4:00 p.m., and on Sunday Mi-
Microd Races—also 4:00 and
6:00 p.m. through Monday
- 3:00 Schenectady Senior Citizens
Orchestra
Entertainment—Roy Rogers and
Dale Evans, Sons of the Pioneers
—also 8:00 p.m. through Mon-
day
- 6:00 Open Jumper
Junior Jumpers Fault and Out
- 7:00 Senior Citizens Square Dance

Sunday, September 5

A.M.

- 9:00 Historic Automobile Exhibit
- P.M.
- 3:00 State Fair Pauses Before God
Grand Concourse d'Elegance
- 6:30 Open Jumper
Open Working Hunter Appoint-
ment
Green Conformation Stake

Monday, September 6

A.M.

- 8:30 Green Working Hunter Stake,
First Year
Green Working Hunter Stake,
Second Year
Regular Conformation Stake
- 9:00 Championship Stock Car Races
- 10:00 4-H Dress Revue—also 12:00
noon
- P.M.
- 2:30 Stars of Tomorrow Show
- 6:30 Open Jumper Stake
Working Hunter Stake
- 7:00 Entertainment—Variety Show-
case

American Agriculturist, August, 1971

Come to the Fair

1000 THINGS TO SEE AND DO • FUN FOR THE WHOLE FAMILY!
These Top Stars Will Entertain You. It's ALL FREE with your Fair Admission Ticket.



ROY ROGERS and **DALE EVANS** with the Sons of the Pioneers. The all-time favorites of millions of Americans appearing twice daily, Sept. 4, 5, 6.



BREAD—hear this hot new group's big hit IF and a host of great rock tunes, Sept. 1.



Festival of Music starring **CHET "MR. GUITAR" ATKINS**, **BOOTS "MR. SAX" RANDOLPH**, **FLOYD "MR. PIANO" CRAMER** in the Music City Sound of Strings and the Boots Randolph Orchestra, Sept. 2, 3.

PLUS THESE FAMOUS HEADLINERS!

The Harmonicats • The Nashville Brass

The Pickerings • The Three Elkins Sisters

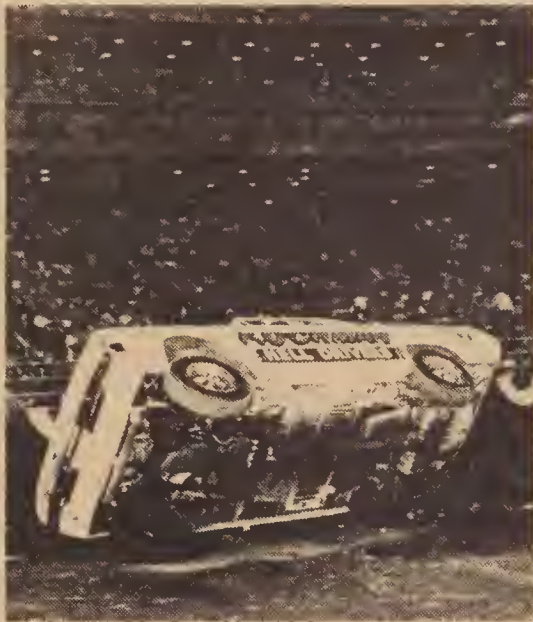
The Cloggers • The Chieftones and many more!



THE ASSOCIATION, a growing legend in pop music with such Gold Record hits as NEVER MY LOVE, WINDY and ALONG COMES MARY. Opening Day performances at 3 and 8 p.m.



THE ARMY'S GOLDEN KNIGHTS PARACHUTE TEAM will combine dazzling aerial acrobatics over the Grandstand with precision landing "on target" August 31 through Sept. 2.



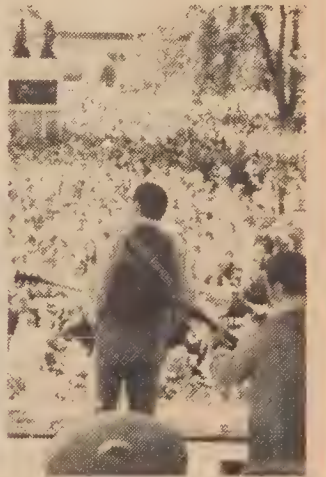
JACK KOCHMAN'S HELLDIVERS defy death in daily auto thrill shows at the Grandstand.



INTERNATIONAL HORSE SHOW with more than 1,300 show horses and riders competing for cash prizes and trophies daily at the Coliseum.



Contestants in the **TRACTOR PULL** may have to pull more than 20 tons to win a share of \$3,000 in prizes. More than 70 entrants will compete for the championship Sept. 4 at the Grandstand.



CONTEST OF THE COMBOS is a daily feature at the new Variety Showcase where there's special free entertainment every day, every night on the Empire Scene.



BUY TICKETS NOW AND SAVE! Advance Sale Tickets are only \$1.25. Buy them at a Ticket Center near you and save 75¢ off the regular price of \$2.00 at the gate.

FREE STUDENT TICKETS for Youth Days, Aug. 31 and Sept. 1 for all students 16 and under. Just ask for them at Ticket Centers. Children under 12 admitted free every day.

NEW YORK STATE FAIR empire scene

TUESDAY, AUGUST 31 through LABOR DAY • SYRACUSE

EXHIBITS OPEN 10 to 10 • GATES ALWAYS OPEN



LABOR PROBLEMS

by Amos Kirby
New Jersey Editor

Farming is becoming one of the most regulated industries in the Garden State.

The New Jersey Supreme Court has ruled that growers must permit recognized State agencies, and representatives of many social groups, the right to visit farms in the interest and welfare of workers who may be housed on the farms.

This does not mean, however, that the gates and doors are open to all inquisitive groups and individuals. The New Jersey Farm Bureau has published a "Farm Labor Action Report" outlining the legal rights of operators, with specific information on how they may protect the workers as well as their property.

The Department of Labor is checking the amount that day-workers harvesting crops are being paid. While the legal minimum is \$1.50 per hour, most growers are paying much more under contracts with the Puerto Rican government.

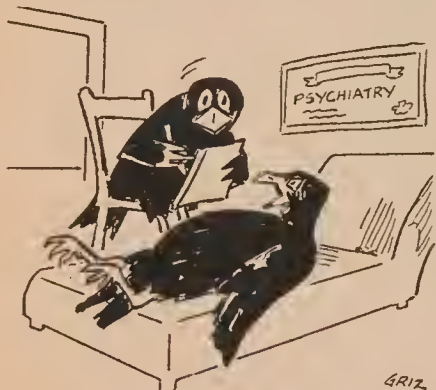
The trouble starts among "day-haul" workers from the cities who come out to farms to pick berries, tomatoes and other crops.

The established practice among many growers, especially of strawberries and blueberries, is to pay so much per pint or quart. A rule of thumb is that harvesting costs must not be more than one-third of the wholesale price. On blueberries, for instance, the cost of picking must be kept close to 10 cents per pint or 15 pints per hour.

If the worker has had no experience, it is almost impossible for him to produce a sufficient number of boxes to justify the legal rate of \$1.50 per hour. This brings up the situation where large numbers of day-haul workers will be denied jobs.

Up to the present time, growers have accepted inexperienced workers and paid them for the amount of fruit they harvested. Now the State demands that they be paid \$1.50 an hour, regardless of performance.

The Extension Service is recommending that both growers and crew leaders keep adequate records of what is paid each worker. To protect both the grower and the worker, records must be kept on the worker's name, address, social security number, and time in and time out for work. In addition, records must show the typical hours worked, number of packages picked, the piece rate and the gross pay.



"Solitary stationary scarecrows don't bug me . . . but when I see a mob of mandolin manipulators . . ."

These and other regulations are causing an increasing number of growers to turn to mechanical harvesters, or change to crops that require little or no hand labor.

The Department of Labor is summoning crew leaders into court for a variety of violations, including not being registered as a crew leader.

Governor Cahill has signed five bills, known as the "Migrant Bill of Rights," covering insurance and other items. One requires upgraded sanitary facilities.

SWEET TOOTH

Alfalfa has a sweet tooth, for which there is no substitute for lime. The alfalfa plant is rich in calcium and without ample supplies in the soil, the plants cannot use phosphorus at its most efficient level. For the best results, lime should be applied at least six months before seeding. It takes time for lime to neutralize acid soils.

PHOSPHORUS

The USDA answers complaints that phosphorus leaching from farm fields is contributing to the growth of algae in streams and lakes. In a normal crop rotation, as much as 6.2 pounds of phosphorus has been lost to erosion. Where grass was grown, the loss has been 0.1 pounds per acre, while on land devoted continuously to corn the loss has been up to 18 pounds per acre.

Much of the phosphorus found in streams, however, comes from metropolitan sewage. The report shows that a city of one million people discharges through its sewage system about 1,000 tons of phosphorus per year. This is sufficient to grow algae in 3.5 million acre-feet of water.

At the same time, much of the phosphorus applied to farmland becomes fixed in the soil and can only be unlocked by plants. The phosphorus in sewage, on the other hand, is in a form quickly available to algae.

BARGAINS

There have been bargains in started pullets this summer. Low prices on eggs forced many egg producers to cancel orders for pullets.

Growers with started pullets and no place to move them have cut prices far below the cost of production. Pullets that normally carried a \$1.75 to \$2.00 price tag have been sold as low as \$1.00 each.

OPEN DATING

Open dating will not be here in 1971, but it can be a reality in the near future. What it means is that a grower or processor must mark each package with the date when the product is no longer safe for human consumption.

In many areas, milk is already being so dated when it was processed. But when it comes to demanding

that a producer of fruits or vegetables pre-date a package of his product in the fresh stage, it cannot be done . . . so comments Miss Marguerite Krackhardt, Extension nutrition specialist at the University of Delaware.

Miss Krackhardt points out that temperature determines the shelf life of all perishables, including frozen foods.

A study by the Department of Food Science at Rutgers University shows that foods may be unfit to eat long before any expiration date if they have been improperly handled during distribution.

The Rutgers report shows that each kind of food poses its own unique marketing problem. One-half of all fruits and vegetables are sold unwrapped; any kind of dating would be impractical.

This promises to be a subject that will be debated pro and con in the near future with special emphasis On New York City's new regulation on open dating.

NEW PESTICIDE

The Food and Drug Administration has approved a new pesticide for use in poultry flocks. This new product, known as Rabon, is an organo-phosphate that appears to have a long residual action against lice and mites.

Like other new pesticides, its use must follow the label instructions. Misuse could lead to withdrawal of FDA approval.

JOHNSONGRASS

In Delaware, Johnsongrass has become as much of an illegal pest as marijuana. Among the recommended systems to control the plant is to spray with dalapon at the rate of seven pounds per acre, then after 5 to 7 days plow the fields . . . and then plant soybeans or other similar crops.

The important angle to the Delaware law is that if noxious weeds are not controlled, legal procedures may be adopted. One of these days, environmentalists may be demanding that controls be established on ragweed as a leading pollen-producer.

OPEN TO VISITORS

The June Dairy Month visitation by consumers to dairy farmers was a big success. Sponsored by the Dairy Committee of the New Jersey Farm Bureau, the open house program is in its second year.

The eight host farms included those operated by: William Raab, Sussex; Richard Sylstra, Washington; Jerry Kanach, Ringoes; Irving Winner, Mt. Holly; William Facey, Yardville; Allen Andrews, Long Valley; Alvin String, Jr., Harrisonville; and Ed Flitcraft, Woodstown.

MARKET ASSOCIATION

The New Jersey Certified Roadside Market Association may soon become a unit of a national association.

Twelve states have already signified their interest in forming a national organization, based on what has been accomplished in the Garden State.

A coast-to-coast survey is now being conducted to enlist the support of other roadside market operators.

HERE'S THE PLACE TO SEE FORD BLUE

NEW YORK

AMSTERDAM
Florida Implement Co., Inc.
ARCADE
Larry Romance
BATAVIA
Tri-County Tractor & Equipment
BEDFORD HILLS
H. A. Stein Tractor & Equipment
BERGEN
Clark & Riter Ford Tractor & Equipment
CLARENCE CENTER
Yoder Brothers, Inc.
CLINTON
Clinton Tractor & Implement Co.
CORTLAND
Cain's Tractor & Implement Inc.
CROPSEVILLE
Brown's Garage
DEPAUVILLE-WATERTOWN
Carl C. Fry, Inc.
DUNDEE
Dundee Motors, Inc.
EAST AVON
Clark & Riter Ford Tractor & Equipment
EDEN
Nobbs Tractor & Implement Corp.
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Nephew's Garage
ELMIRA
E. & O. Ford Tractor Sales, Inc.
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FILLMORE
Ricketts Farm Supply, Inc.
GLENS FALLS
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GOVERNEUR
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Moore's Garage
HICKSVILLE
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Island Ford Tractor Sales, Inc.
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Newark Tractor, Inc.
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Peru Farm Center, Inc.
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Seaboard Tractor & Equipment Corp.
WASHINGTON, N.J.
Smith Tractor & Equipment Inc.

PENNSYLVANIA

SAYRE
Ben Van Dusen Sales & Service



Hay! Ford Blue, what's your hurry?

If the forage you plan to store or feed is still out in the field and time is getting short, then bring it home in a hurry with the help of Ford Blue. Our Ford Blue 680 forage harvester can help out in a big way by chopping up to a ton a minute. That's big capacity.

Two bolts and a belt. That's all it takes to change attachments on this big-capacity 680 forage harvester. It's that simple. Attachments, shown in insert photo, include windrow pickup, direct-cut and 1, 2 or 3-row attachments for row-crop. One to fit any type of forage operation you may have.

Simple cut-and-throw design saves you fuel and horsepower while maintaining big capacity. Works with tractors 50 to 130 horsepower. Standard equipment lets you chop any length you want from 1/4-inch up to 2 1/4 inches. Optional gears and sprockets provide other lengths of cut from 1/8-inch.

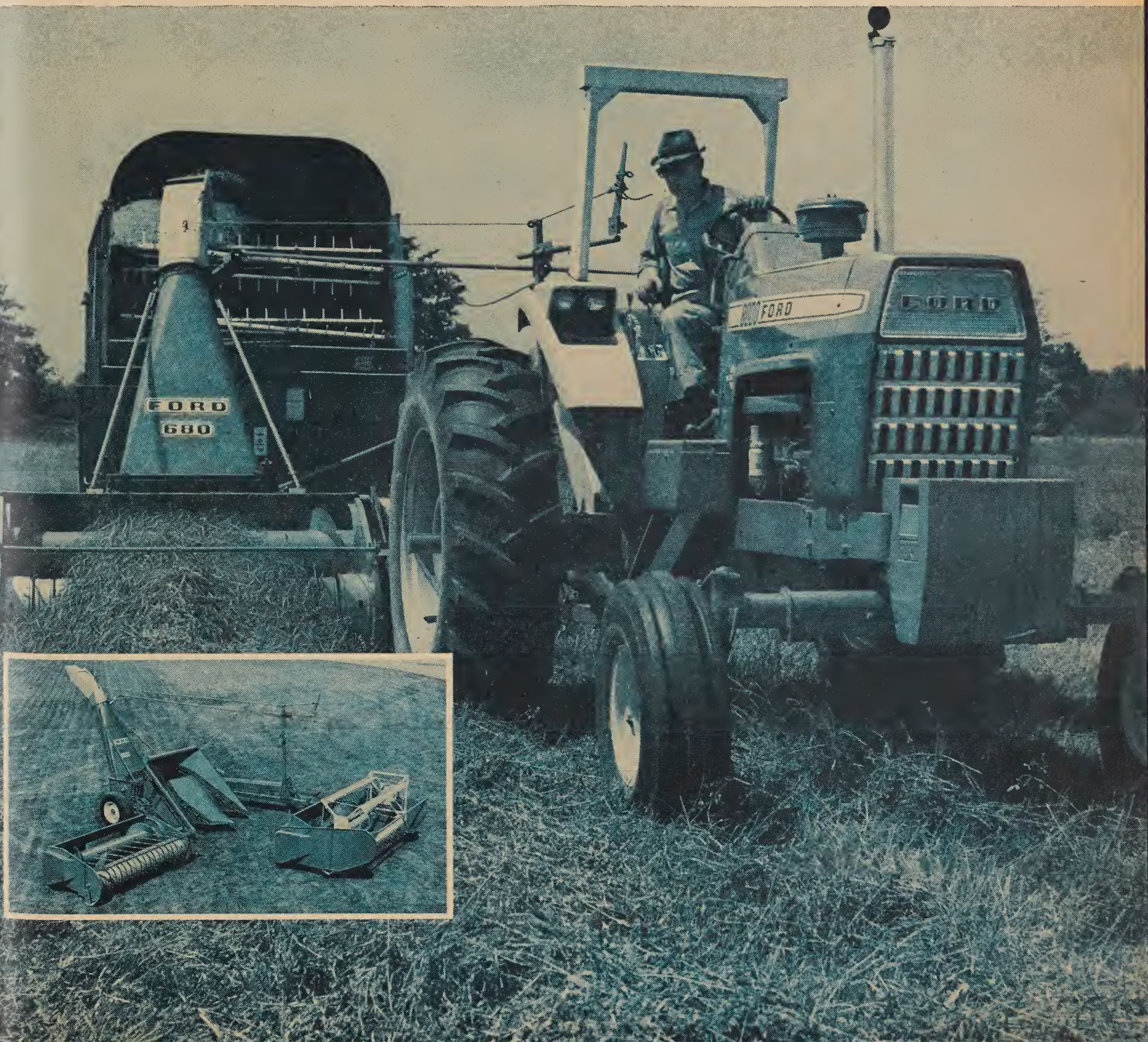
Big Blue gets bigger. The new 810 Big Blue forage box is another big helper. Its 500 cubic foot capacity is nearly 25 per cent bigger than our previous models. Equipped with optional 18-in. side extensions and roof, capacity goes to more than 700 cubic feet. With Big Blue trailing your Ford 680, you'll finish the job a lot faster.

Come on in now and let us show you all these great Ford Blue hay tools personally, along with the rest of our fine Ford Blue line. Tractors from 30 to 130 hp and attachments to match. You'll find us listed on the adjoining page. Hurry in.



Ford Blue . . .
your key to greater quality.

FORD TRACTOR





Dissolving Plastic — Pesticides packaged in plastic bags that dissolve rapidly in water will be available in limited quantities in farm markets this season. Niagara Chemical developed the one pound, water-soluble plastic bags for use with wettable powder insecticides that are mixed with water and applied by spray equipment. Users will be able to add sealed packages to sprayer mixing tanks without direct exposure to the material.

The bags will also simplify disposal of contaminated pesticide

packaging, and eliminate a possible source of pollution build-ups that could result from accidents or misuse of emptied containers.

Tests over several years show that the dissolved vinyl bag has no effect on the biological activity of the insecticide and does not clog sprayer nozzles.

Apple Digest — A new book entitled "North American Apples: Varieties, Rootstocks, Outlook" brings together many facts of interest to apple growers.

A major portion of the book deals with the seven leading North American apple varieties... Delicious, McIntosh, Golden Delicious, Rome Beauty, Jonathan, Winesap, and York Imperial, and the minor

variety, Northern Spy.

The important clonal rootstocks are described, and their strengths and weaknesses pointed out. A brief history and descriptions of a number of yesteryear's varieties is included, as well as a chapter entitled "Apple Orchards of Tomorrow."

For full information, including price, write to: Michigan State University Press, Box 550, East Lansing, Michigan 48823.

Harvester — A "Small Bush" blueberry harvester for full-grown "low bush" varieties, as well as higher variety bushes before complete maturity, has been introduced by Harvey Harvesters, Spring Lake, Michigan 49456.

The new machine complements

the Harvey "high bush" harvester available since 1966, and the shaking, catching, conveyor and blower mechanisms of the new machine are standard systems adapted from the one that was previously developed.

For additional information, write to the manufacturer at the address above.

Tested Fruit — An organization to which numerous northeastern fruit growers already belong, and which others might like to join, is the New York State Fruit Testing Cooperative Association. Write them at Geneva, New York 14456 for membership information and a price list of nursery stock available from the Association.



Look here for better ideas when you visit Empire Farm Days

Displayed at Agway's tent will be some of the newest ideas in mechanized storage and feeding of silage. And there will be much other equipment to point the way to lowered labor costs and greater output per man.

Agway is taking this opportunity, too, to round up many of the specialists who contribute to the pool of knowledge Agway makes available to members. These specialists will be on hand to answer questions and discuss new concepts in such areas as milk handling, crops, insurance, farm buildings, and petroleum products.

As in other years, make the Agway tent your headquarters for relaxing. There's an abundant supply of cold drinking water at all times.



FARM ENTERPRISE SERVICE

SAFETY EXHIBIT CONTEST

The New York State Rural Safety Council announces a Safety Exhibit Contest for youth groups interested in participating at county or youth fairs or other public functions. Exhibits ready by August 15 may be selected for State Fair competition, but will also be judged if entered by October 1.

Copies of the contest rules are available from: E. O. Eaton, Riley-Robb Hall, Cornell University, Ithaca, New York 14850.



George W. Henry

NEW NYDHIC MANAGER

George W. Henry of Oneonta is the recently-appointed general manager of the New York Dairy Herd Improvement Cooperative, headquartered in Morrison Hall, Cornell University, Ithaca. He replaces Professor Robert W. Everett, acting general manager for the last six months.

In his new capacity, Henry is responsible for managing the five regional organizations that provide dairy testing and herd management in 31 counties of the Empire State. NYDHIC supplies a records processing service for all dairy counties in the State, and operates a testing laboratory at Ithaca.

Born on the family farm near Canandaigua, the new general manager has had years of practical farm experience, as well as 16 years of commercial association with the dairy industry with Ralston Purina Company and Cooperative Feed Dealers.

Henry is married and has five children. The family plans on relocating in the Ithaca area in the near future.

American Agriculturist, August, 1971



Dick Packard and some of his young cattle.

EMPHASIZES QUALITY

South of Mount Pisgah's green shoulders is the 285-acre farm of Richard and Marilyn Packard of Troy, Pennsylvania. Both are 1961 graduates of Penn State . . . Dick majoring in dairy science, and his wife in home economics. Both have won trophies in judging or showing dairy cattle in years past . . . Dick still does some cattle judging at area fairs.

The Packards have operated their present farm as owners since April, 1970. They have been in the dairy business for a number of years before that, though, on another farm. Over the last three years, their herd has twice had top production records in the Bradford County DHIA . . . and has been second on one other occasion.

Top DHIR

Last year, the herd was tops in Pennsylvania DHIR testing in the 31-50-cow category . . . with 19,615 pounds of milk and 731 of fat. In DHIA, the herd has averaged over 18,000 pounds of milk for the last two years.

The Packard milking herd numbers 33 purebred Holsteins, and Dick isn't eager to enlarge it to the point where he would need a full-time hired man. He presently hires two high school boys on a part-time basis.

High production records naturally tend to attract buyers of livestock, and the Packards figure that the sale of young stock constitutes a kind of cash crop. A California dairyman has visited the farm, and bought a top-quality animal . . . but most are sold much closer to home.

All breeding here is AI; Dick selects the bulls. He has primarily three cow families upon which he bases his quest for an even more outstanding herd . . . one cow family has three generations in the barn, each with annual production in excess of 20,000 pounds.

Roughage

The roughage program involves hay, corn silage and all-summer pasture. A mow fan allows hay to move safely into the barn a bit green

and tough. Hay supplements pasture during much of the summer; in 1971, oatlage was used.

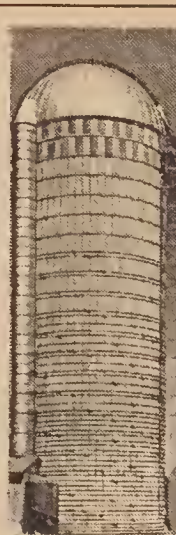
Practically all heifer calves (and a few bulls) are raised . . . there were 43 head of young cattle on the farm the day I visited. They're kept in pens in the main barn until 6 to 8 months of age, then moved to an open shed. A handy innovation in the calf pens is the gutter cleaner going along one side of each of the six pens. During the winter, the gutter cleaner is operated until empty . . . then that portion of its length within each pen is filled with manure from the pack. Dick reports it's handy . . . and not time-consuming . . . to keep pens clean this way.

It is a bit time-consuming to feed grain to the milking herd four times

a day during the winter feeding season . . . plus hay three times daily, and silage twice. But Dick borrowed a chapter from the book of top dairyman Gerald Stoeckel of Bloomville, New York, and believes that

feeding often **does** increase production.

Dick and Marilyn take the time because they want to be proud of each animal bearing the Pack-Herd prefix! — G.L.C.



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Choose Between Two Great Silos
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Quality Stave
Construction
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Save by ordering early.

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AT THE
EMPIRE FARM DAYS**

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EXCLUSIVE
AIR-COOLED
DIESELS**



Deutz air-cooled diesels are engineered to run 100° hotter than water-cooled diesels. That means more efficient combustion—more power on less fuel—no exhaust smoke and no carbon buildup. A direct injection system converts fuel to immediate power that lives up to its rating. On the average, a Deutz 66 hp tractor uses about 3 gallons of fuel per hour. How does your tractor compare?

There's an air-cooled diesel—from 23 to 100 horsepower—at the heart of every Deutz tractor. It's the reason we can promise you dramatic fuel savings over other diesels.

Some day all diesels will be air-cooled. Why wait? See your Deutz dealer today.



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Northeast FARM EXPERIENCE



TIE-STALL BARN

The Susquehanna River goes rolling through Tunkhannock, Pennsylvania and forms a gigantic horseshoe just west of town. Donald Williams operates a 300-acre farm that touches both sides of that horseshoe.

Don's barn burned on the last day of March in 1969...and he hesitated a bit as to whether to rebuild. "I was 53 then," he comments, "too old to rebuild, and too young to quit!"

Rebuilt

He finally decided to rebuild, and chose a tie-stall barn measuring 38×170 feet. With the memory of the barn fire fresh in his mind, Don built as nearly fireproof as possible. Two silos (a 16×50, and a 14×50) went through the fire in a usable condition... and a 20×60 was added. No hay is stored in the new barn.

Barn walls are formed by cinder-blocks 12 inches thick, rather than the usual 8... no pilasters are needed for strength. There are four expansion joints in each of the two long sidewalls. There is no extra insulation in the core-block sidewalls, but there are six inches of insulation above the ceiling.

Plastic

The ceiling is formed by a pressed board having plastic coating on one side... with nail head rows, as well as joints, well-taped. There is an average space of 10 feet between floor and ceiling. This, plus the fact that the stable floor slopes two feet on its 170-foot length, allows the around-the-barn pipeline to slope for drainage, and still not bang Don's head at the low end.

Vents run along both eaves... a Vent-O-Matic system manufactured at Tunkhannock. A single crank on each side controls the size of air openings. Three grouped fans exhaust air on the east side of the barn. The outside opening just under

(Continued on page 25)



Don Williams installed ceramic tile as a manger-liner.

"Uni-System just (Especially at harvest time.)"



Uni-Picker. The only machine that will pick and husk more than two rows at a time. Self-propelled! Its capacity is unsurpassed.



Uni-Sheller has gentle rubbing action that results in fewer cracked kernels and fewer fines. Handles up to 4 rows with stripper plate cornheads or 4 wide rows with Superpicker (snapping roll) cornhead.



Uni "Corn Country" Combine now available with optional Bin-Stretcher rear unloading auger, that moves grain from grain tank to a trailing wagon. Stop only to change wagons!



Uni-Forage Harvester uses a 2-row wide or a 3-row narrow head to chop more than 60 tons an hour. Choice of six cutter head screens. Hydraulically controlled spout.

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...makes more sense."

It's what farmers are saying. Because Uni-System can be used to harvest beans, grain and forage crops. For planting. Or for snow removal. But it's especially useful at corn harvest time.

Uni-System can be used to harvest beans, grain and forage crops. For planting. Or for snow removal. But it's especially useful at corn harvest time.

Uni-System can be used to harvest beans, grain and forage crops. For planting. Or for snow removal. But it's especially useful at corn harvest time.

Uni-Sheller or Uni-Combine. Or it'll chop 2 or 3 rows with the Uni-Forage Harvester. You can get a cornhead for making ear corn feed. Any of these might be reason enough for you to go Uni. You might even decide that right now is the time for you to make the move. But chances are, when you switch, it'll be because you weighed all the factors. And you came to the same conclusion thousands of other farmers did!

"Uni-System just plain makes more sense to me." Take a look at Uni — now at your New Idea dealer. You'll see the sense of it, too.



Uni Power Unit
which makes
interchangeability
possible.

Uni-System.
just makes more sense.



Coldwater, Ohio 45828



Uni-Forage Harvester with 6-foot windrow pickup.



Uni-Combine with 11- or 13-foot grain platform.



Uni Tool Carrier for planting up to 8 rows at a time and applying liquid fertilizer.

Tie-stall

(Continued from page 24)

the eaves is 3-1/4 inches wide.

An unusual feature here is a special lining along the manger immediately in front of the cows. Three rows of ceramic tile (each tile measuring 8x16x1-1/2 inches) form a hard and easily-cleaned surface . . . these were "seconds" and the total material-cost was about \$200.

Little hay is fed the milking herd . . . roughage is haylage in the morning, and corn silage at night. Both are moved by battery-powered silage carts. Hay is fed, though, to young cattle and dry cows . . . housed at another barn nearby.

Trainers

Stalls are 4 feet, 6 inches wide . . . tapering on one side from 72 to 68 inches long. On the other side, lengths vary from 74 to 70 inches. Don comments, "I thought they were too big until I installed the electric cow trainers; they work very well!"

The Williams have purebred Holsteins, and like to keep the stable in spic-and-span shape. There are two full-time hired men here to help with chores and field work. Some breeding stock is sold to other dairymen . . . the 80-cow herd is well-known for its DHIA average (16,000 pounds of milk, 574 of fat in 1970).

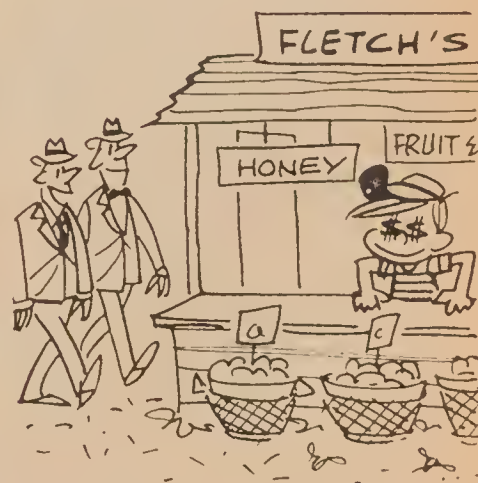
The milk moves through a milk-house big enough for another tank in addition to the one being used. Milkhouse walls are insulated with sprayed-on urethane applied to their inside surfaces. So far, it has worked well . . . moisture-proof, attractively-colored, and providing satisfactory insulation.

Problems

Any clouds on the horizon? "Well," Don admits, "bedding has become an increasing problem. We use sawdust . . . but it's increasingly hard to find enough." He direct-seeds hay crops, so has no oat straw . . . and no place to store it at the main barn even if he did have some.

Another potential problem is obvious from driving up the North Eaton Road toward the Williams place . . . there are a lot of non-farm neighbors living in houses hither and yon. But Don reports reasonably amicable relations with his non-farm neighbors. He has, however, resisted the temptation to sell building lots on his farm along the Susquehanna . . . believing that this might complicate his dairy farming nearby. — G.L.C.

FLETCHER THE 4-H'R



"I'm one of Fletcher's better paying customers. Notice the look on his face when I pull in?"

nearest you.

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FARM POWER from M & W

This is the plow that keeps the farmer on the tractor and on the go — right through the toughest kind of rocks and trash. Both bottoms and coulters have their own independent hydraulic reset systems. Bottoms lift up to 24 inches, coulters up to 14. Then return smoothly and automatically to their preset depth.

M & W Perfect Kern'l Dryers

unmatched for Economy, Capacity and Grain Quality. M & W Dryers are different from all others because of the exclusive Con-Current Flow Process. There's no over-heating, no over-drying, no pockets of wet grain to start spoilage.

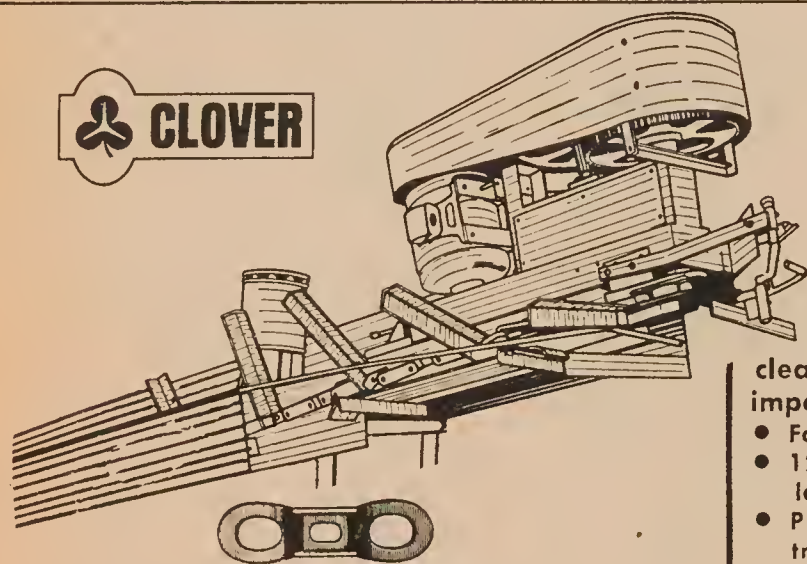


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WILL SHOW THE M & W GEAR LINE AT
EMPIRE FARM DAYS

UEBLER'S — VERNON, NEW YORK

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New SUPREME Chain is heavy forging — beefed up at points of greatest wear.

July and August — Special — Clover will give you \$100 off on all complete barn cleaners and \$60 off on all chain replacements of 180' or more. We have chain to fit most all makes of barn cleaners.

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No other barn cleaner offers so many important features:

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- Trouble-free gear arrangement
- Adjustable idler corner assembly
- Adaptable to any shape or size barn



EMPIRE FARM DAYS

THE biggest, most comprehensive farm-equipment supermarket in the northeast . . . with massive displays and demonstrations of just about everything in the line of machinery and supplies needed to run your farm . . . is set for its annual three-day run in mid-August.

This year, the bigger-than-ever Empire Farm Days will be held August 10, 11 and 12 on 100 acres of a Central New York farm owned by John Halpin and sons, located two miles north of Route 5 near Caledonia, and only a short distance from NYS Thruway Exit 46 south of Rochester.

A crowd of some 50,000 is expected to be on hand during the three-day event. Admission is free, there'll be ample free parking, and you'll find more than enough to keep you occupied and open-eyed!

Demonstrations

The main exhibit area, consisting of about 16 acres, will be surrounded by parking and demonstration areas within easy walking distance. Early indications are that field and crop demonstrations will be more numerous than ever before.

Here's what you'll see . . . more than 150 exhibits of all that's new in just about every type of farm equipment . . . daily plowing, tilling and harvest demonstrations . . . the latest equipment for materials handling, grain drying, and feed processing . . . feed, seed, chemicals and fertilizer exhibits.

Displays will also include pharmaceuticals, AI organizations, farm buildings, silos and storage units, trucks and truck bodies, tires, petroleum, packaging equipment, finance and insurance, lightning protection and auxiliary power.

You'll find a unique and highly-effective equipment demonstration system that makes it easy for you to watch and compare. Only one machine is demonstrated at a time, and each manufacturer has a chance to describe his particular unit before sending it on its way. This orderly technique will be used for tractors, plows, forage harvesters, hay equipment, potato harvesting machines, self-propelled and trailed

field choppers, windrowers and other hay-conditioning tools.

Crop demonstrations will show different crop varieties and ways of growing them to get the best results . . . with and without herbicides, for instance, and the effects of fertilizers.

There will be a special tent with continuous programs of particular interest to women . . . styles, home items, entertainment . . . or a place to just sit and rest.

No need to worry about food, either. A variety of food tents will be set up at strategic spots to supply almost anything you can think of in the line of food and drink to keep you well-nourished.

Sponsors

Empire Farm Days is sponsored by the Empire State Potato Club in cooperation with AMERICAN AGRICULTURIST, New York Farm Equipment Dealers Association, New York Farm Equipment Club, the New York State Extension Service, New York State Electric and Gas Corporation, Niagara Mohawk Power Corporation, and Rochester Gas and Electric Corporation.

The Halpin Farm

The Halpins . . . John, Sr., and his sons John, Theodore and Robert and daughter Elizabeth . . . operate 3,600 acres in the rich, rolling farmlands south of Rochester. Crops include 600 acres of snap beans, 535 of sweet corn and 900 of field corn. What do they do in their spare time? Operate two John Deere dealerships . . . one at Henrietta, the other near Hall, in Ontario County.

Empire Farm Days will be held at what the Halpins call their Caledonia farm . . . 1,040 acres not far from the village of Caledonia in Livingston County.

Routes 5 and 20 go through Avon together, then split just west of that village. Travel west from that intersection, then take the first road to the right. Once called the Canawaugus Road, but now officially the West River Road, it's the highway that will take you to Empire Farm Days '71.

Don't miss it!

American Agriculturist, August, 1971

LISTEN!

***Listen to your body, not your tractor...
and you'll discover a better way to farm.***

Time was, more engine roar meant more engine power.

Not any more!

Your tired ear drums and aching back are a warning of UNNECESSARY abuse. Case has an answer.

Quiet comfort

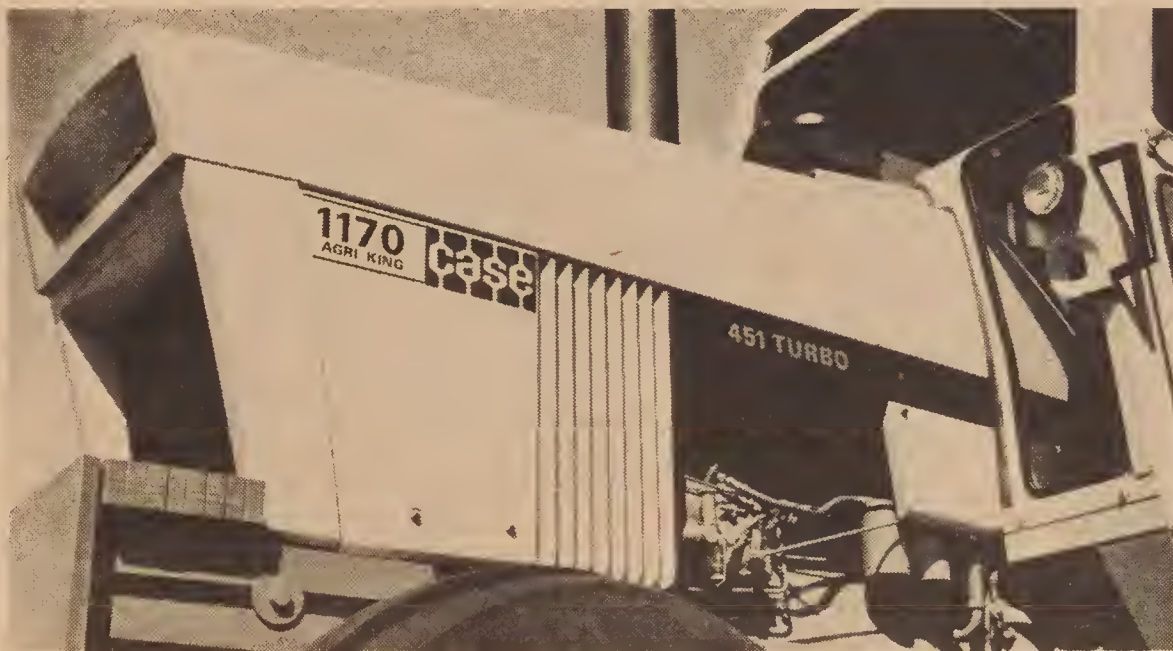
You deserve the quiet—freedom from excessive tractor noise—quiet that only Case can give you. Can prolonged exposure to excessive tractor noise be harmful to your hearing? A Canadian study showed that one-third of the farmers in the 55-59 age group had hearing loss enough to have trouble understanding normal speech. In the same group, 60% of the larger farmers had reached that stage.

Can we prove that Case tractors are quieter? Impartial tests show Case Agri King tractors—with or without cab—to be quieter by far. You see the results in the chart below... your Case dealer has the official figures.

SOUND LEVEL AT OPERATOR'S EAR AT FULL THROTTLE AND 100% LOAD

(Leading 100-136 hp tractors)

WITH CAB			
CASE 1170 TRACTOR	87 dBA	89.5 dBA	ALL OTHER TRACTORS TESTED 97.5 dBA
WITHOUT CAB			
CASE 1070 TRACTOR	87 dBA	95 dBA	ALL OTHER TRACTORS TESTED 99 dBA



Note that noise levels *with cab* range from the Case 1170's 89.5 dBA (decibels) to a competitor's high of 97.5 dBA. *Without Cab*, the level ranges from the Case 1070's 95 dBA to a high of 99 dBA for other tractors.

Remember, just 6 extra dBA means twice as noisy. And the tests show noise levels *up to 8 dBA higher* for other leading tractors. In every power class, Case tractors recorded substantially lower noise levels.

How do we achieve this quiet comfort? The patented Agri King platform floats on 4 king-sized rubber bushings which absorb vibration and metal-to-metal transmission noise. The cab is Case-designed, Case-built—tightly sealed, acoustically lined, super quiet.

And comfortable! Your choice of 3 seats. A temperature-controlled cab, air-conditioned if you'd like. No more breathing dust and pollen—just

clean, fresh air. But there's more to consider when you choose a tractor—much more!

LISTEN...

Big-cube power

More and more big power men are looking to big Case cubes to handle big jobs easier. Easier to get the work done, and easier on YOU. Bigger displacement Case engines that handle every job faster with plenty of reserve muscle. No strain... moderate engine speeds and long power stroke that result in tremendous torque—and an engine that lasts—and lasts.

A smoother engine, and more quiet by far. Official tests now show that lower rpm tractors are more quiet.

S-m-o-o-t-h power shift that delivers *full* power to the drawbar, matched non-stop to every job. And reserve power... up 7.8 to 12.5% more in the new Agri Kings.

LISTEN...

Protection

Listen to your common sense that tells you your protection is mighty important—to you *and* your farm. Case guards you with 4-corner cab protection that supports the entire weight of the tractor on a complete roll-over. Exhaustive tests during Case cab development included as many as *seven roll-overs with one tractor.*



We designed the windows to pop outwards from roll-over impact. We added spillproof covers to prevent battery acid, fuel and radiator coolant from spilling in an upset—we use a seamless rupture-resistant nylon fuel tank.

Then buckle up! Protection doesn't work until you work at it, too.

Test drive the NEW Agri Kings.

Make your next tractor a better place to LIVE! Your Case dealer is ready with a no-obligation demonstration. J I Case Company, Racine Wisconsin 53404

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P.O. Box 49
- FLORIDA**
Florida Equipment Corp.
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- FORT ANN**
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Smith Basin, Route 149
- GOUVERNEUR**
Jones' Farm Supplies
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- FULTONVILLE**
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Monroe Tractor & Implement Co., Inc.
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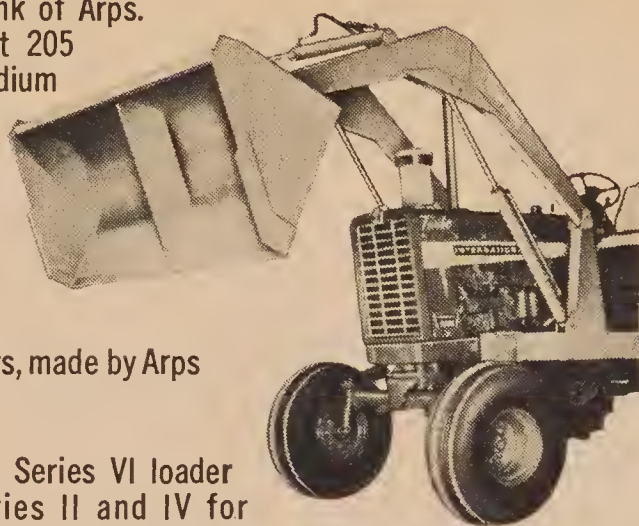
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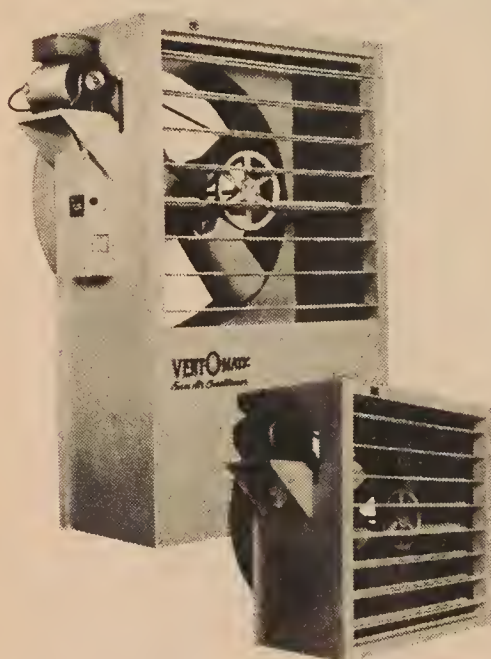
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What's NEW in the FIELD

by W. D. Pardee



SUMMER SEEDING

AUGUST is a good month for fishing, swimming, and camping. I hope to get away for a few days to do all three . . . got to be sure my little boys learn how to take bass off their hook! Hope you have a chance to take yourself a refresher too.

But "back on the farm," it's a good time for summer seeding. Note that I didn't say "fall seeding." I've seen too many "fall seedings" made in mid- to late-September that failed. Best time is August. The earlier in the month the better in New York and New England, shifting to the latter part of the month farther south. Stands started during August can take advantage of fall rains and make enough growth to get through the winter before cold weather hits. September seedings can just plain run out of growing time.

Crops differ in their adaptation to summer seedings. Alfalfa does well if you get moisture to bring it up. Grasses do fine, including timothy, brome and bluegrasses. Birdsfoot trefoil is risky. A bit slower to start, this legume has not been as consistent. I've seen nice stands of summer-seeded trefoil, but I've seen more failures than successes.

Summer seedings have pros and cons. Major advantage is that you can establish seeding after harvesting a small grain crop, early silage or hay, and get it off and growing this fall. Another advantage is cost. Summer seedings rarely suffer from weed or insect problems so you can save money on spray. And with good establishment, you can go for two-thirds of a normal crop next year.

Big disadvantage of summer seedings is the risk of dry weather. Without good moisture during August and September, your seeding may be thin. If it's real dry you may have a failure. In northern parts of the Northeast, odds favor spring seedings, yet summer seedings can be quite successful. Farther south, rainfall patterns usually supply enough fall rains and also longer growing seasons for better establishment.

A dry soil isn't as bad as a moist soil that dries out. Biggest harm can come from a light shower that just wets the soil enough to trigger germination. Then if hot dry weather pulls the moisture from the soil in 2-3 days, new seedlings can wither and die. Newer alfalfa varieties, like Saranac and Iroquois, can germinate and get roots down in 3-4 days far enough to reach deeper moisture. Older varieties such as Ranger needed 5-6 days of summer moisture and so were riskier for summer seedings.

Best planting methods differ some from those you might choose in the spring. But most things are the same.

As always, soil tests are your best guide to nutrient needs. Soil tests taken during the next few days will stand a good chance of fast processing and quick results, since this is a slack time in most soil-testing laboratories. With results at hand, plan to lime to 6.8 to 7.0 pH. Add phosphorus and potassium as indicated.

For summer seedings, be sure your seed bed is firm. In one way or another, roll it or cultipack it before seeding. Subsoil moisture will rise up through a firm soil more easily than it will through a loose seed bed. Your chances of getting a good stand in a fluffy soil are small.

Corrugated rollers and cultipacker-type seeders come into their own in this type of seeding. Brillion-type seeders are ideal. These have a corrugated roller that firms the soil ahead of and below the seed, then another that packs the soil over and above the seed, meanwhile placing the seed at about 1/4-inch depth.

As always, be sure not to bury the seed. Band seeding, press wheels, Brillions, etc., the best equipment you can get will help in summer seedings.

Fast Starters

Choose a fast-starting alfalfa variety like Saranac, Iroquois, or one of the new commercial varieties that can give you fast come-up. Stay away from slower starters like Ranger. High seedling vigor improves your odds of getting a first rate stand.

Fall management of summer seedings is easy . . . just leave them alone. We've had our best experience when we've given plants maximum opportunity to develop root systems and to stow away root reserves to get through the winter. These seedling roots are small and the more they can store, the better.

FARM VISITS

Having just come from a series of farm visits, I'm struck by several major changes. These look to me like historic changes in the way we farm.

First off, the movement to hay-crop silage is spreading fast. More farmers than ever put all or most of their first cut into the silo this year, some plan to put the second and third in, too. As one man said, "Watching it go through the chopper sure beats throwing those bales around."

And labor isn't all he's saving. He's harvesting earlier and getting done sooner, since you can chop earlier in the day than you can bale. By mowing in the morning, he can chop by evening or at least the next day. Weather risk is minimized as an important factor this year, when wide-spread mid-June rains soaked hay curing in the field.

(Continued on page 29)

American Agriculturist, August, 1971

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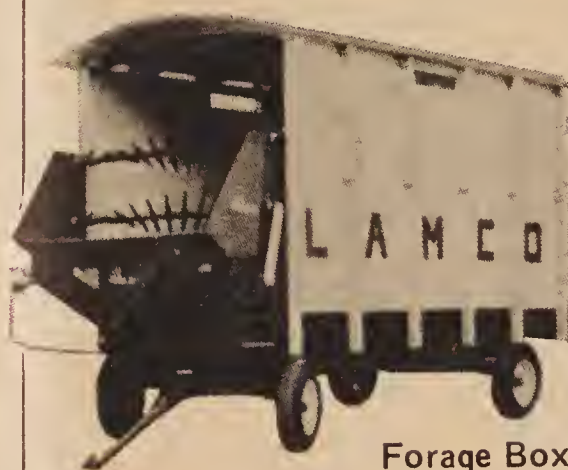


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Mfg. & Dist. CO. Inc. - Locke, N.Y.

Pardee

(Continued from page 28)

I talked to men with airtight steel, concrete stave, even bunker silos, all having success so long as they fitted their harvest and storage management to their structures.

With the success stories we've heard this year, we see this practice continuing to spread. If you haven't shifted at least part of your harvest to hay-crop silage, check with men in your locality who have. Most times you'll find they're convinced and will never turn back.

As with anything else, there are "tricks to the trade" and they can probably pass some of these on to you. And the investment in storage can't be taken lightly. You'll need some real pencil-pushing to figure out what's best for you.

No Nurse

Another strong move is to seeding **without a companion crop**. It looks to me as if nearly half our seedings in New York went in this way, more in some areas. And most look good. We talked to farmers ranging from 10 years of experience seeding this way to those trying it for the first time. Almost all are enthusiastic and plan to continue.

Here again, this appears to shape up as a historic change in our farming practice and looks like the way we'll sow alfalfa in the future.

It's true that cool weather in New York in May and June held some "clear" seedings back, but they're coming on strong now. We've seen some dismal "luck" where no herbicide was used. Weeds can take over fast. Still, most farmers who did things anywhere near right have first-rate stands, and will harvest two cuts this year.

CROP WATCHING

August is a good month for crop watching. Check your own crops, your stands, your weed control, your bugs and your yield potential. If things aren't all they might be, it's a good time to find out why, so you won't have the same trouble next year. And your Extension agent or dealer can help diagnose your problems better now, when they can see your crop, than they'll be able to next winter.

A good August look-see at your crops can pay off. Take a peek at your neighbor's crops too. If he's goofed, you'll have ammunition to kid him with. On the other hand, if he's doing something well, he may have helpful tips that you can use.

And while you're off the farm, bring your fishing rod and check the creek on your way back. Maybe you'll find some bass to take off the hook too!

INSTANT REPLAY

by D. A. Hoover

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Without our banks of memory,
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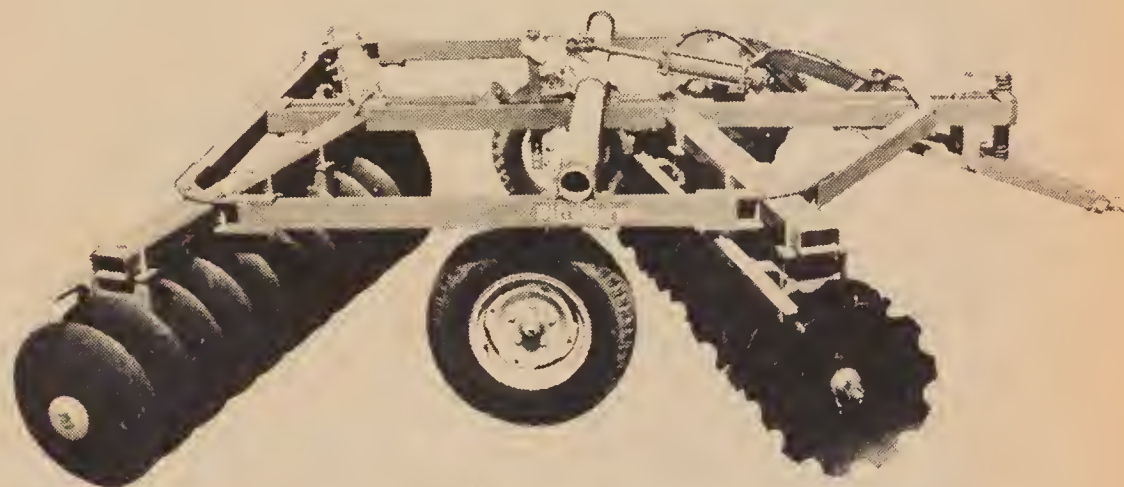
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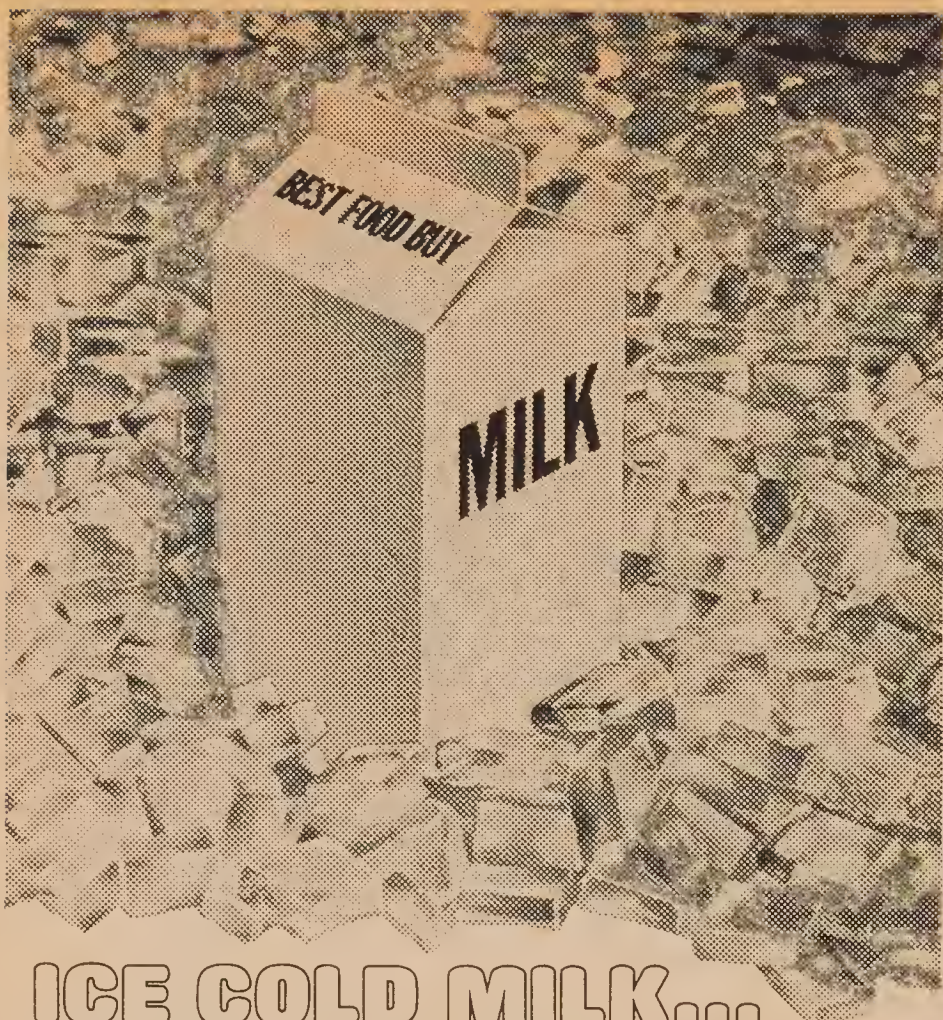
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LIKES HMSC

Freight costs, like most other costs, never seem to go any direction but up. Each turn of the freight-rate ratchet has increased the cost of moving feed grains from the Midwest to the Northeast... creating a growing incentive for northeastern dairymen to use grain purchased nearer home.

Ray Albrectsen, who farms near Trumansburg (Tompkins County), New York, is enthusiastic about the use of high moisture shelled corn (HMSC)... some home-grown, and part purchased locally... to feed his 85-cow milking herd. He has fed HMSC since 1964, and has concluded that his cost for a ton of 14-percent-protein feed is \$20 to \$30 less than a purchased grain mix.

These figures include the purchased soybean oil meal required to soup-up the protein level of corn. They also take into account the fact that Ray purchases about half of the HMSC he uses from neighbors... at prices ranging over the years from \$38 to \$45 per ton.

Palatable

The Albrectsens find that HMSC is very palatable to cows. It is stored in a Harvestore silo (20x27 feet) at the Ray-Lou Farm, run through a roller mill as it comes out, and fed to cows in the mangers of the tie-stall barn.

"We have a sweep-auger for an unloader," Ray comments. "Grain moisture content should be 30 percent or less... or else it forms a big doughnut in the silo and the unloader won't bring it out." He recommends a chain-type bottom unloader if moisture percentages are above 30... or if a storage structure taller than 27 feet is being used.

Another reason for watching moisture percentages closely, Ray reports, is the possibility of butterfat depression. He once fed some HMSC having 34 to 35 percent moisture, and noted a substantial lowering of the herd's butterfat test. Ray prefers moisture levels between 26 and 28 percent.

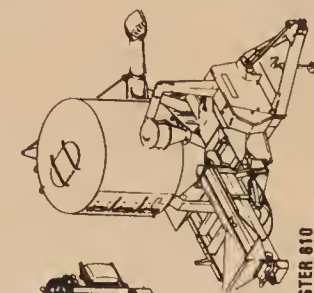
Three Times

The Albrectsens feed a cow grain three times a day if she's getting 28 pounds of more per day of the corn-soybean meal ration... otherwise grain feeding is done only twice daily. Roughage ration involves corn silage (averaging 20-25 pounds per cow per day), alfalfa haylage (dry matter about 50 percent), and alfalfa hay at about 14 pounds per cow daily. The herd's latest rolling DHIC average is 15,600 pounds of milk and 589 of fat.

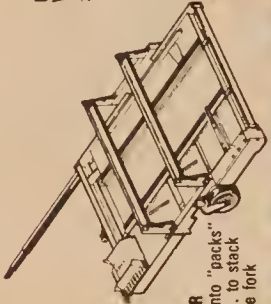
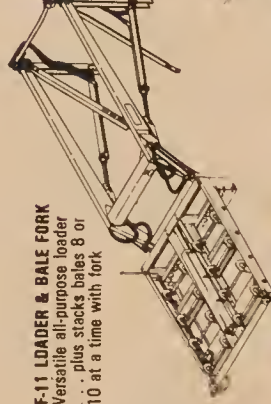
Ray is an outspoken advocate of the use of HMSC for feeding dairy cattle. He finds that field losses are minimized by harvesting early at his own farm... that he saves labor as compared to other methods... that all costs of storing HMSC add up to only \$8 per ton per year... and he likes the fact that only 11 percent of his milk check is needed to buy feed.

Ray sums it up, "High-moisture corn storage just makes a lot of sense... every time I figure with the farm management pencil, it calculates out to being a good arrangement as far as I'm concerned."—G.L.C.

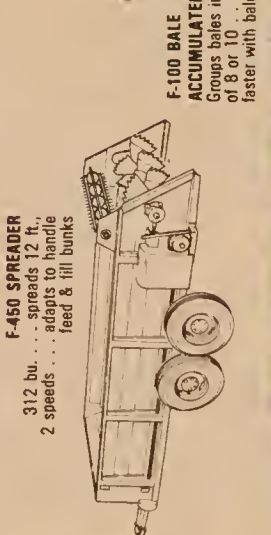
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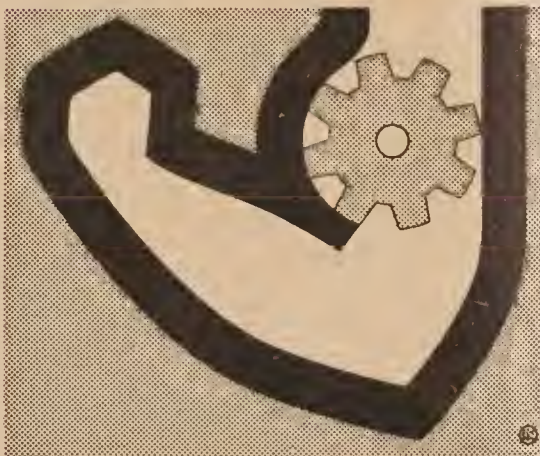
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Aug. 1-4 - Annual Agribusiness Conference American Institute of Cooperation, Colorado State University, Fort Collins, Colo.

Aug. 7 - NY Hereford Association Field Day, Crowfields Farm, Bedford Village, N.Y.

Aug. 10-12 - Empire Farm Days, John Haplin & Son Farm, near Caledonia, N.Y.

Aug. 11-12 - NYS Maple Syrup Tour, Lewis County, N.Y.

Aug. 12-15 - Annual Pageant of Steam, Canandaigua, N.Y.

Aug. 13 - Feeder Pig Sale, Caledonia, N.Y.

Aug. 15-18 - 26th Annual Meeting Soil Conservation Society of America, Sheraton-Columbus Hotel, Columbus, Ohio

Aug. 15-18 - Meeting of North Atlantic Region, American Society of Agricultural Engineers, University of Guelph, Guelph, Ontario, Can.

Aug. 15-20 - Joint Meeting American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, New York City

Aug. 16-21 - 2nd Annual Short-horn Show, Sandy Creek Fair, Sandy Creek, N.Y.

Aug. 17 - Cape Cod Cranberry Growers' Association Annual Meeting, Massachusetts Experiment Station, East Wareham, Mass.

Aug. 19-20 - Annual Meeting National Livestock and Meat Board, Christopher Inn, Columbus, Ohio

Aug. 20-21 - Lumberjack Round-up, Killington, Vt.

Aug. 20-28 - Erie County Fair, Hamburg, N.Y.

Aug. 24 - 1st Statewide Dry Bean Field Day, Herbert Call Farm, Stafford, N.Y.

Aug. 24-25 - Maine Farm Days, Burleigh Crockett Farm, Rt. 104, Fairfield, Maine

Aug. 29-Sept. 1 - 25th Annual Meeting National Association of Animal Breeders, Neil House, Columbus, Ohio

Aug. 31-Sept. 2 - Agricultural Progress Field Days and State Plowing Contest, Rock Springs Agricultural Center, Rt. 45, Pine Grove Mills, Pa.

Aug. 31-Sept. 9 - New York State Fair, Syracuse, N.Y.

Sept. 7-11 - National Association of County Agricultural Agents Annual Meeting, Ohio State University, Columbus, Ohio

Sept. 10-12 - Annual Meeting NYS Poultry Industry Coordinated Effort (SPICE), Edgewood Hotel, Alexandria Bay, N.Y.

Sept. 16 - Annual Cornell Corn Field Day, Aurora, N.Y.

Sept. 17 - Feeder Pig Sale, Caledonia, N.Y.

Sept. 17-18 - New Hampshire Forest Field Day, Moultonboro, N. H.

Sept. 17-26 - Eastern States Exposition, West Springfield, Mass.

Sept. 20-24 - 8th Annual Pennsylvania All-American Dairy Show, Farm Show Building, Harrisburg, Pa.

The familiar oil lantern, once the standby of American farms, will no longer be manufactured in this country . . . after 131 years of production. The R. E. Dietz Company of Syracuse, New York, has transferred its lantern-production facilities to a Hong Kong subsidiary. But just in case they are needed, dies for the two models of lanterns held above (George Petrie at left and Tom Wu, right) have been carefully stored in Syracuse.



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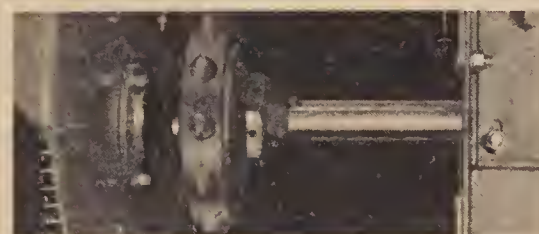
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BUTLER MANUFACTURING COMPANY

JAMESWAY DIVISION

104 West Milwaukee Avenue, Dept. AA-081
Fort Atkinson, Wisconsin 53538



"It belonged to Reverend Smith who only used it on week days."

American Agriculturist, August, 1971



Will farmers in the Northeast be allowed to spread manure without immediate plow-down?

Will Farmers

LOSE BY A NOSE?

"There is nothing like it on the face of the earth to compare with it. It is the most offensive, penetrating, pungent odor I have come across."

That is how Louis Borek, with the Schoharie County (New York) Health Department, described the odor of poultry manure from the Paprocki Egg Farm near Middleburg in rural Schoharie County. This farm has about 24,000 laying hens. These hens produce about 4.3 tons of manure a day. A similar amount of manure would be produced daily by 94 dairy cows.

Mr. Borek was a witness for the New York State Department of Environmental Conservation at that Department's official hearing. The Department was charging the Paprocki Egg Farm with "continuous negligence in failing to properly contain and dispose of manure," whose odor "unreasonably interferes with the comfortable enjoyment of life and property."

What manure-spreading* practices were being condemned? Topdressing permanent pastures, topdressing hay fields after the first cutting, and heavy application (on land for corn) not plowed until the day following the spreading. These common agricultural practices for manure disposal are under serious attack by the Department of Environmental Conservation.

This hearing about poultry odors has wide-ranging implications for the entire animal industry in New York State. These agricultural practices were not being questioned in suburban areas, nor were they being questioned in an area next to a small city. They were being questioned in one of the most rural settings in the State...and on the grounds that farm odors "unreasonably interfere with the comfortable enjoyment of life and property."

Look from the Paprocki Egg Farm and you see clear fields for the production of alfalfa, corn silage and several vegetable crops. Wooded hills are in evidence. The Schoharie River runs through the valley. A

few houses can be seen at a distance from the Paprocki Farm. These houses belong mostly to farms, and one neighboring poultry farm is clearly evident. You can see a church steeple in the town of Middleburg one and one-half miles away.

Ken Hotopp, Schoharie County Cooperative Extension agent, said in testimony at the Department hearing, "Agriculture is the biggest industry in this county. Dairying is the largest farm activity, followed by vegetable farming and poultry farming." Mr. Hotopp said that the population of Schoharie County is about 22,000 people...which makes the county the fourth least-populated county in New York State.

Mrs. Crewell is the chairlady of the Town of Middleburg Zoning Committee. She said, "During the last ten years, only one house has been built on Route 145, which goes past the Paprocki Farm." Her statement indicates that the area is not becoming a "bedroom area" for any metropolitan region.

Official Hearing

The Department of Environmental Conservation officials evidently chose to hear the Paprocki case near Middleburg because they have had complaints about odors coming from that farm. The Department reported 15 written complaints over a three-year period. Four of these were from a boarding house owner, and eleven were from other individuals...some of whom live five and six miles from the farm.

That in itself probably was not enough to have an official hearing about odors from manure spreading. However, Chris Nunaman, the mayor of the Village of Middleburg, testified at the hearing that odors from spreading chicken manure could be smelled in the village. He said, "One or two complaints a week increase to about a dozen when the smell gets into the village."

The Schoharie County Health Department had complaints since 1966. Mr. Paprocki did not purchase the farm until 1967. He cleaned up the premises, and the town of Middle-

burg at that time sent him a letter complimenting him for freeing the area from objectionable odors. Complaints to the County Health Department continued, however.

The Department of Environmental Conservation must have felt that pressure from the Village Board, from the County Health Department, and from their own written complaints was enough to justify an action against the Paprocki Egg Farm to determine exactly what was going on. This is evidently the basis for the official hearing that was held.

Objections

The owner of an old-style boarding house across the river from the poultry farm testified at the hearing that she "smelled a sickening odor coming from the Paprocki farm." Three neighbors living within 100 yards of her testified that they smelled odors occasionally, but were not bothered by them. Objections to the manure odors appeared to be a personal thing.

Mr. Borek of the County Health Department investigated complaints several times. He testified that manure was being spread on hay fields after the first cutting was removed. He said, "The manure was just left there."

He found it was also being spread on permanent pastures. These fields were on the Crewell dairy farm, which is one-half mile from Paprocki's farm and about two to three miles from the Village of Middleburg. Objections were being made to odors from the topdressing of both hay fields and permanent pastures.

Another practice that the Department of Environmental Conservation documented was a very heavy application of liquid poultry manure to land on the nearby Crewell dairy farm. From the photographs, it appeared that an application of perhaps 20 tons per acre was being applied...an amount considered as a usual agricultural practice.

According to the Department, the manure spreading was finished at 3 o'clock in the afternoon. The dairyman was responsible for plowing this application of manure down. He did not plow it down until the following day. The Department was

objecting to the heavy manure application lying on the field overnight.

John Dodge, poultry specialist with Agway, testified that, "Liquid manure storage causes anaerobic digestion which increases objectionable odors from manure." Further testimony by Mr. Paprocki brought out the fact that he had installed holding tanks at the request of the Schoharie County Health Department...so that manure would be spread once every twelve weeks instead of once every six weeks.

Mr. Norman Keller, counsel for Mr. Paprocki, brought several witnesses to the stand to indicate that farms surrounding Middleburg were spreading manure daily. Some of these farms were located much closer to Middleburg than the Paprocki Farm.

He also called on Mr. Ralph Hemingway, from the New York State Farm Bureau. Mr. Hemingway had been a dairy farmer for 17 years. He testified that, "The odor of dairy manure from animals fed brewers' grains is very similar to the odor of poultry manure." He further testified that manure odors were not offensive to him since they were familiar to him.

William Toleman, regional poultry specialist for Cornell University, testified that, "The Schoharie Valley Poultry Farm next door to the Paprocki farm has about the same number of laying hens. The manure-handling system is practically the same. Manure from caged layers is scraped into liquid holding tanks and is spread on their own land next to the Paprocki farm. Any odors from their manure should be identical to the odors from the Paprocki farm."

The counsel for the Department of Environmental Conservation indicated that Paprocki was the first on their list.

Unacquainted

During Mr. Toleman's testimony, it became evident that the Department of Environmental Conservation was not aware of any land-fitting practices other than plowing. Discing was pointed out as being a cheaper alternative to plowing, and that a good discing job will eliminate odors as well as plowing would. Cornell

(Continued on next page)

American Agriculturist, August, 1971

University guidelines for reducing farm manure odors were introduced in testimony by Mr. Toleman.

There is no doubt that some farmers spread manure without sufficient regard for their neighbors. When questioned, the common reply by the farmer is that, "I was here first and these people will just have to put up with any odors from manure." This attitude is becoming more and more unacceptable.

Farmers now represent about five percent of the population of New York State. There is a large voting bloc that can and is putting pressure on local and state officials concerning practices of manure disposal. Odors can be reduced by proper equipment, and by proper management decisions.

Additive

Everyone would like a manure additive that would stop odors and not injure growing plants, but there does not now appear to be a practical one. Cornell University researchers have screened scores of enzymes and bacterial digesters. According to Professor Charles Ostrander of the Poultry Department at Cornell University, none of these have proved particularly effective.

A new commercial product on the market right now has not been fully evaluated for odor control effectiveness. However, if this material were used according to manufacturer's directions, it would cost the New York State poultry industry about \$1½ million annually . . . about 13¢ per bird. With the industry in a depressed egg-price period, combined with high feed prices, it would cause great hardship to raise the cost of production by that figure.

Field equipment that injects liquid manure underground . . . such as the Sahlstrom or Bilt-Well machines . . . was under discussion during the Department hearing. Paprocki uses a Sahlstrom soil injector on his two farms . . . the first one in the United States to use this type of equipment.

The spreader appears to work very well in the light, sandy loam on his other poultry farm near Rotterdam, New York. It appears, however, to be limited by the stony, clay soil on the Middleburg farm.

The clay soil bakes hard during the summer and has caused the hoses

to become disconnected from the cultivator feet that implant the manure underground. The soil is very wet in the spring, and the heavy equipment sinks down and becomes mired. Any soil, of course, is frozen during the winter, which limits the use of the soil injection equipment . . . although it can be used then to spread on top of the ground.

The hearing officer, Mr. Earle Murray, will look over the testimony from the hearing and present his considered views, with recommendations, to Commissioner Diamond for action. The case can be dismissed, or an abatement schedule can be set up with a time limit and a fine if odors continue. The third course the Department has is to get a court injunction and stop operations on the farm. Mr. Paprocki may have to choose whether to close the farm or appeal the case to a higher court.

If he appeals the case, he faces considerable lawyer and court charges, probably in the neighborhood of \$5,000 to \$10,000. If that happens, farm organizations may help Mr. Paprocki in his appeal.

Any directives issued by the Department will have wide-spread effects, not only on poultry farms, but on all animal farms in New York State. Agriculture, as a billion-dollar industry in New York, could be severely handicapped by restrictive manure-handling requirements . . . particularly if such practices as topdressing are eliminated, and if plowing immediately after spreading is required.

OTHER TROUBLE

Out in Western New York, poultryman Eugene Lewis of Corfu, New York, is also having disposal problems. More than a year ago, he was arrested for spreading poultry manure . . . charged by a neighbor with "creating a public nuisance."

Considerable legal maneuvering has ensued . . . and a final trial date will be set. Attorney Vincent Cardone is representing Lewis.

Farmers in that area, as well as over the entire State, are deeply interested in the trial's outcome.

The Song of the Lazy Farmer

The very sight of pesky flies brings angry red into my eyes; of all the critters on this earth, there ain't a one with lesser worth than dirty,

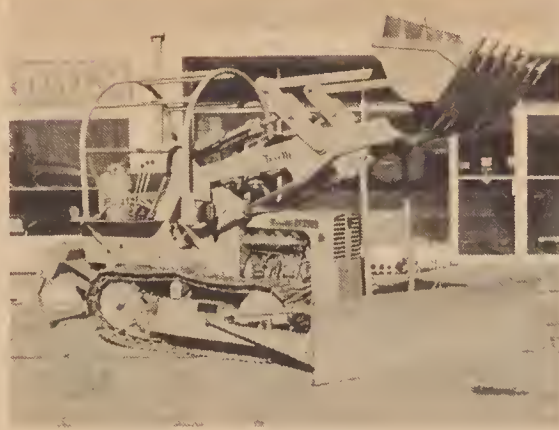


biting flies, by gee, nobody hates 'em worse than me. A lizard is a slimy thing, but it don't buzz around and bring a lot of filth into the house; you may not think much of a mouse but you can trap one easily and it's no trick to make it flee. A panther is an ugly beast but there's none in my barn at least; some say a snake's the worst they've seen, but snakes don't cluster on your screen.

Inside the house it ain't no trick to keep the flies from getting thick; these fancy new insecticides will burn big holes in their insides. Sometimes a little dust or spray will chase the doggoned things away so you can open up a door and not let in a million more. But outside in a barn or lot, they breed too fast for you to swat; oh, sure, we're told we'll be fly-free if things are cleaned up spotlessly, but so far I ain't found a way to organize Mirandy's day to make her normal farm jobs fewer so she'll have time to haul manure.



With Our
ADVERTISERS



Surplus Tractor Parts Corporation, Fargo, North Dakota, is distributor for the Toselli line of crawler and wheel tractors. A three-cylinder, air-cooled diesel engine powers the Model CF350L (pictured).

The company is exclusive distributor of Acme engines, also manufactured in Italy.

A twin-vacuum operating principle that provides for stable milking vacuum at the teat and eliminates the need to inject air into the milker units to move the milk is a feature of the new Model "Seventies" Zero Concord Pipeline Milking System.

The twin vacuum . . . one milks the cow and the other moves the milk through a separate pipeline into the bulk tank . . . is reported to help reduce leucocyte counts and prevent rancid and off-flavor milk.

Dairymen and their families who attend Empire Farm Days and the New York State Fair will be interested in seeing the new Model "Seventies" Zero Concord Twin-Vacuum Pipeline Milking System and other Zero Milk Handling Equipment that will be on exhibit.

AVCO NEW IDEA has expanded its line of manure-handling equipment with the addition of eight models of liquid spreaders in four sizes . . . 800, 1100, 1500 and 2100-gallon capacity. The spreaders are available with either swing-open doors or sealed ends. The open-door type provides quick and easy access to the tank for cleaning, so the spreader can be used for hauling water, liquid for spraying, or other materials.

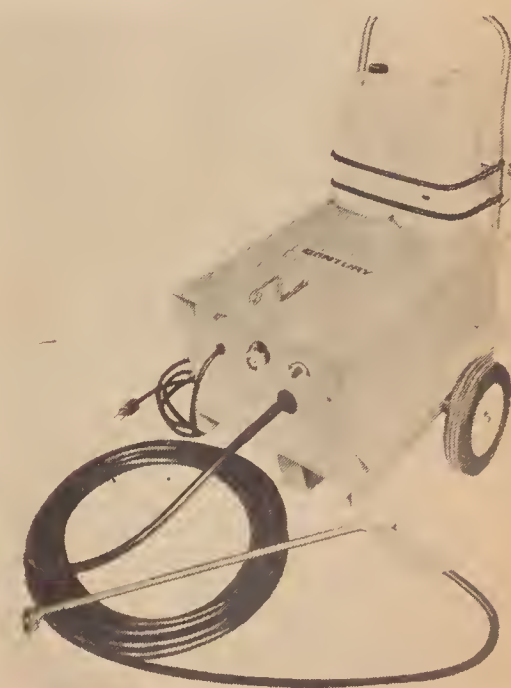
Optional spreading devices include a plow-down attachment to inject liquid manure into the soil 10 to 12 inches deep, and a corn row attachment.

Air agitation inside the tank keeps solids in suspension, preventing build-up.

The Roto Salt Company traces its history back to the early 1900's when Frank Beyea began making a salt brick for the harness trade in New York City. Now a subsidiary of Cayuga Service, Inc., the Company has production facilities at Penn Yan and Union Springs, New York. Product line consists of three sizes . . . three-ounce spools, four-pound bricks, and ten-pound blocks . . . and four kinds of salt (sulphur, iodized, trace mineral, and white).

With the acquisition of a manufacturing plant at Penn Yan, the company . . . still headquartered at Union Springs . . . looks ahead with plans for considerable expansion.

A catalogue listing almost every kind of tire for anything that rolls is available from Reliable Tire Company, 1145 Chestnut Street, Camden, New Jersey 08103. The fully-illustrated literature, which includes wholesale price lists, is free. Reliable Tire is one of the largest headquarters in the world for every type and style of auto, truck, sport car, farm, trailer, and other type tires.

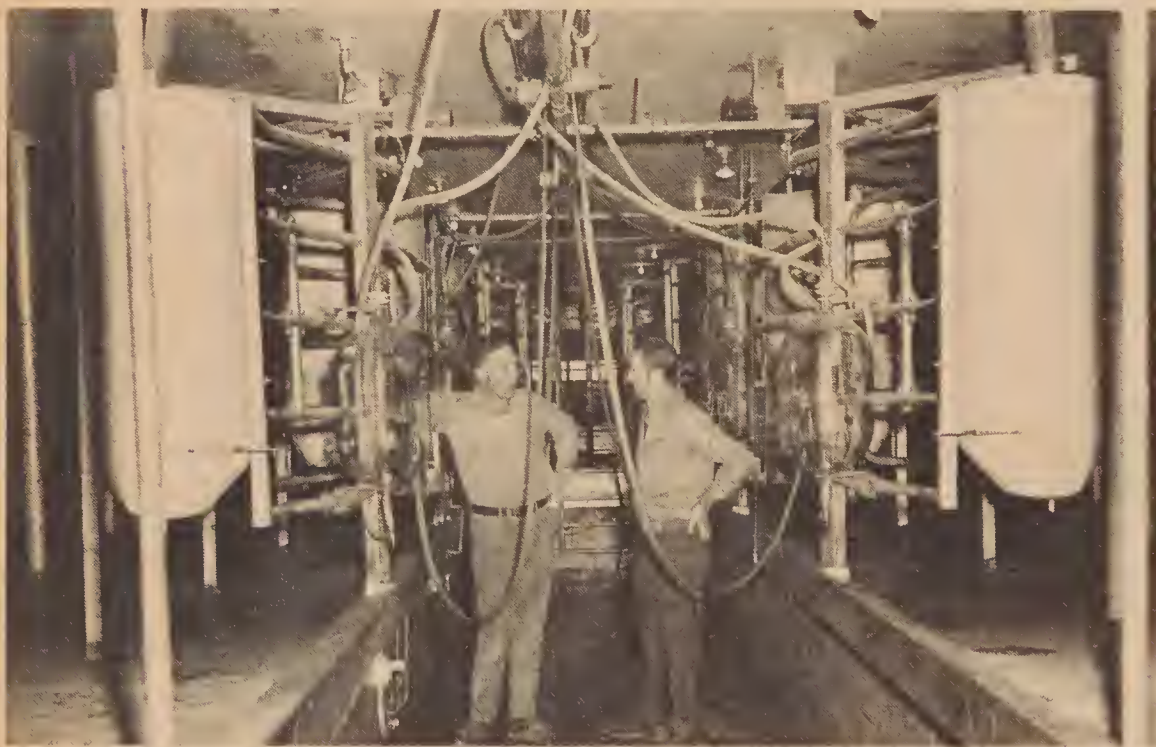


Handgun control on the new HPW-2D high-low pressure portable washer engineered by Century gives complete unit control up to 30 feet from the washer (length of the handgun hose). From 30 feet away, the user can turn spray off and on, switch to apply cleaning solution at low pressure, or change to a 500-pound pressure rinse.

For complete information about the HPW-2D remote control pressure washer, write to: Dept. AA, Century Engineering Corporation, Agricultural Division, 221 4th Avenue S.E., Cedar Rapids, Iowa 52401.



Northeast FARM EXPERIENCE



Hans Block (left) and Chautauqua County Extension agent Carl Pearce visit about the operation of the new milking parlor.



The holding area and milking parlor at the Block farm are included in one big room measuring 22 x 100 feet.

AGPRO PARLOR

Hans Block and son Peter of R.D. #3, Sugargrove (Warren County), Pennsylvania, recently began using a milking parlor that is unusual for the Northeast. Called the Agpro parlor, it is manufactured by an outfit at Santa Rosa, California.

Probably its most spectacular feature is the "swoosh" of water that cleans it...roaring out from two tanks at one end, each holding 300 gallons. The parlor and 60-cow holding area are in one big room measuring 22 x 100 feet, and the floor slopes 32 inches from one end to the other of that 100 feet.

Unusual

Other unusual features include: all power to move parlor gates, feed, etc., is supplied from a big air compressor... cows entering the milking area are automatically "prepped" by water sprays from the floor, first by cold water, then by warm... a combination of catching pens and return alleys within the parlor area allow considerable flexibility in handling cows... six "man passes" on each side of the parlor (and one in the middle) provide flexi-

bility in allowing people to "filter" through the cow-restraints without having to open or close gates.

It's designed to allow one man to milk 50 cows per hour, using four milker units... or one man handling 70 cows per hour with the addition of two more units, along with equipment that automatically drops off each teat cup when the quarter is milked out.

The 152-cow herd is divided into four groups according to production... those producing 60 pounds and up of milk per day... those in the 35-to-60-pound category... the 0-to-35-pounders... and dry cows. The first three groups are milked in the same order as mentioned... and each group is fed differently.

Feeding

Enough grain is fed in the parlor to get 'em to go in gracefully... about five pounds of 14-percent-protein commercial feed mix per cow per day. High-producing group also receives, daily in the feed bunk, on a per-cow basis: four pounds of 32-percent ration, 20 pounds of high-moisture ear corn, and full-feed haylage (occasionally some corn silage). A liquid protein supplement

is also fed to this group, averaging two pounds per cow per day from a self-feeder.

Hans started small in farming 20 years ago, gradually built a 40-cow herd. Then, in 1962, he switched to beef cattle and fed out 500 feeder steers a year... retailing the beef at the farm. He reports that he was able to command a slight premium in price over prevailing prices in his area... but, in spite of this, the venture proved unsuccessful in terms of profits. "The volume just wasn't sufficient," he comments. "We found by careful bookkeeping that we had to feed and market 600 head a year just to break even."

After eight years and 4,000 fattened cattle, Hans switched back to the dairy business in October of 1970. He and his son presently have 443 acres of land on which to base the dairy enterprise, newly-created with cows purchased from three herd dispersals.

MEAT MANUFACTURER

Not far from Whitesville (Allegany County), New York, is an enterprise on a 150-acre farm that is a bit unusual for that area. Partners James Fitzpatrick and Walter Folts are creating a building complex for what might be called "pork manufacturing."

One building (50 x 186 feet) has a capacity of 330 sows... one end a breeding area, and the other having pens. The second building holds 100 farrowing crates... a third building will be the nursery... and the fourth will be used for fattening pigs for market. The schedule calls for 100 sows farrowing every two months,

and between 5,000 and 6,000 market hogs produced per year.

The breeding area has concrete-slat floors around its perimeter. The gestation area has all slat floors. Manure goes through slats into an oxidation ditch, where it is continuously moved in a slurry form by two paddles... each powered by a 5 hp electric motor.

Odor in the air is unnoticeable, and even the odor of the dredged-up slurry is not objectionable. When completed, each building will be equipped with an oxidation-ditch arrangement.

The breeding-gestation building has an outside skin of 3/8-inch Masonite; inside walls are 1/4-inch exterior plywood. Between these are 3.5 inches of spun-glass insulation... as is also the case above the ceiling, which is formed by sheets of galvanized steel. Thermostatically-controlled space heaters are fired with bottled gas for supplemental heat, if needed.

Air is exhausted by ten fans, all on one side of the building... intakes are formed by 14-inch-diameter pipes extending through ceiling from space above. They are equipped with weighted dampers toward upper end, baffled at discharge end to prevent direct drafts. In warm weather, windows can also be opened for air intake.

The operation is integrated... tied in with a feed manufacturer (Purina) at one end of the meat-manufacturing process, and with a packer at the other end. Walter Folts comments, "Most of the pork consumed in the Northeast is shipped in from outside... we think we can make a profit by shipping the feed into the area and finishing hogs closer to the market." — G.L.C.



Walt Folts feeds sows.

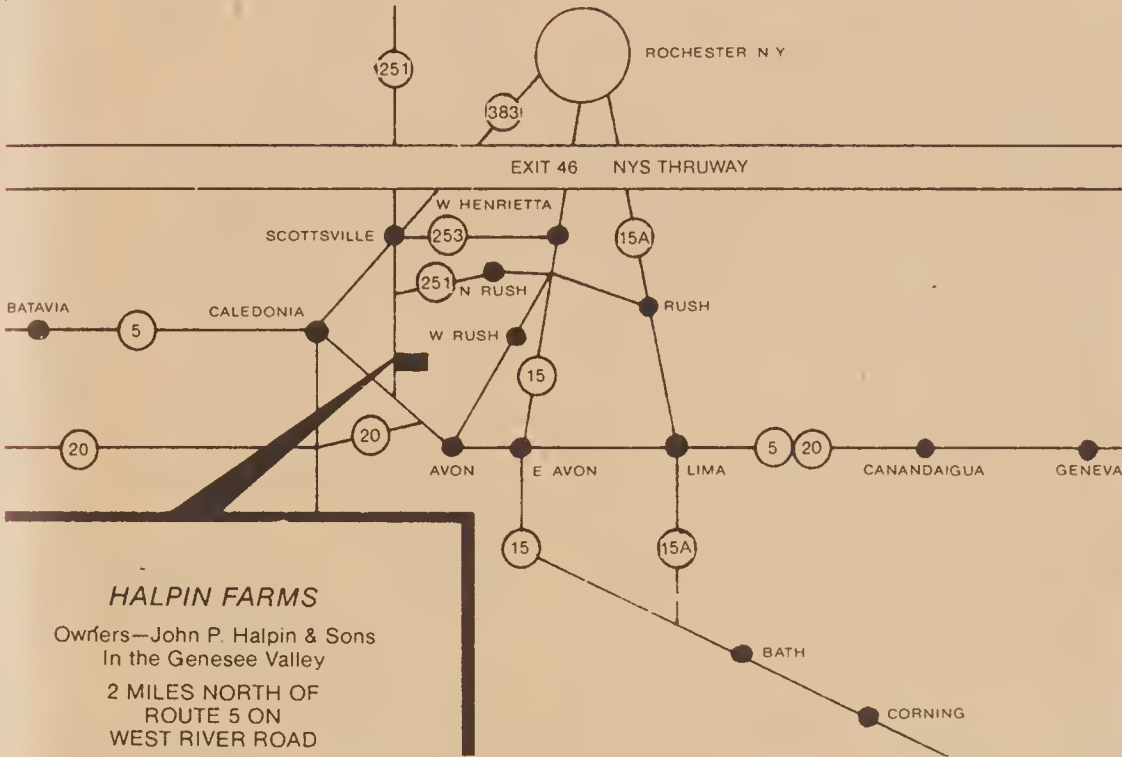


Sows in gestation area are in pens with slat floors. Non-mechanical feeding here encourages daily observation of each animal.

EXHIBITORS

National Farm Consulting Service
New Holland Div., Sperry Rand Corp.
Niagara Chemical Div., FMC Corp.
New York Farm Bureau
N.Y.S. Employment Service
N.Y.S. Rural Safety Council
Northeast Dairy Co-op Federation
Oliver Corporation
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"I like the auger unloading features."



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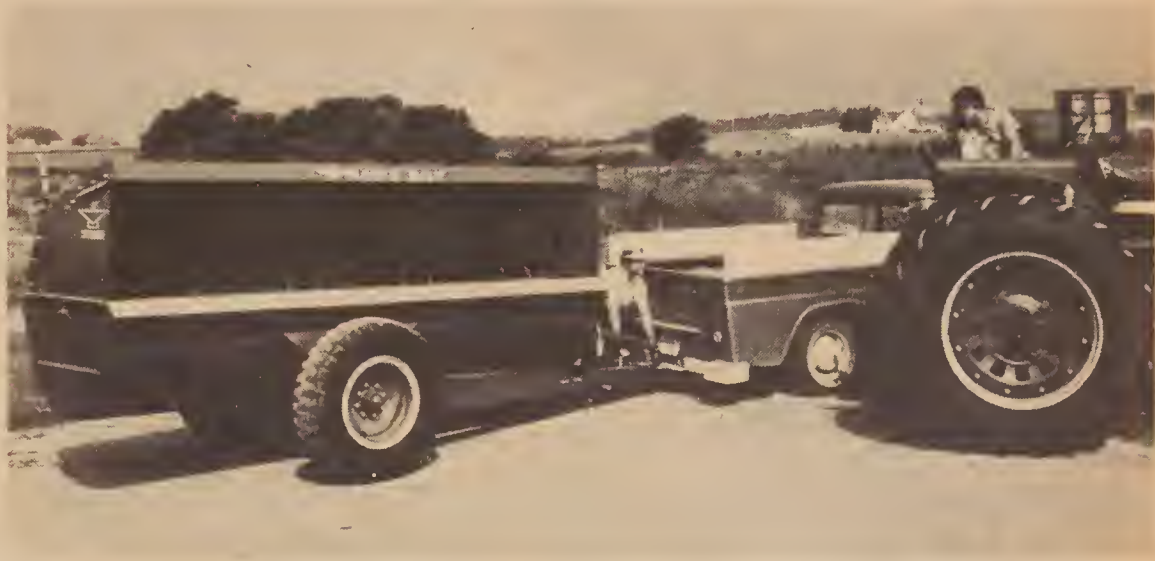
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Cost of repair	None	\$70 Est.	Could be very high.
Degree of Safety	High. In protected location	Medium	Medium
High flight prevents bridging?	6"	1/2"	1"
Does it handle ear corn?	Very well	Not from a loaded start	Yes
How about spillage?	None. No return strand to carry material.	Yes	Yes. Can be a problem
Cost of Extension	\$10	\$150 Est.	\$100 & up.

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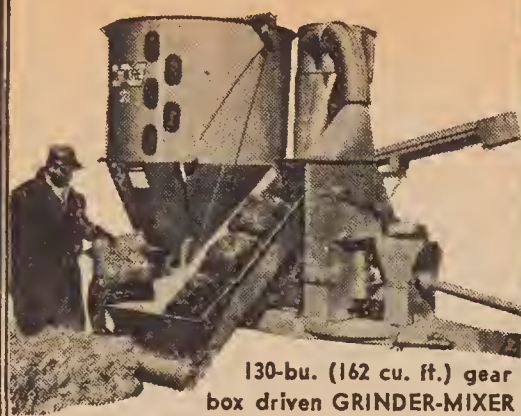
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Northeast FARM EXPERIENCE



Harold Mullen's barn is nestled in a valley between towering hills . . . atop which are many of the acres he farms.

HILL AND VALLEY

Harold Mullen owns 700 acres near Canisteo, New York, and rents enough to up his total operated acreage to 1100.

An unusual feature here is the 1000-feet of elevation difference between the lowest and highest point of this sizable spread. The Mullen farmstead is in a valley, but Harold grows many acres of corn and other feed crops at elevations around 2000 feet.

Short-season corn varieties are obviously called for, and Pride 5 has proved to be one of several good performers. Atrazine at 2.5 pounds per acre, plus one cultivation, is the standard weed-control program . . . Harold shoots for 23,000 corn plants per acre in rows 36 inches apart.

The 104 milkers here are housed in a recently-built free-stall barn. Corn silage is stored in a 24x70 upright silo, haylage in a 20x60. The Mullens are also feeding high-moisture ear corn for as long as their supply lasts . . . and report that they think very highly of it as a dairy concentrate.

Although sheep have been a secondary enterprise here a long time, Harold says he's going to sell the 65-70 ewes. "We're spread too thin labor-wise to take care of them as we should," he comments. "Besides, packs of dogs are just too much of a problem."

Here's a farm family doing well on some rough topography, and on soils (Mardin, Lordstown, Volusia) that are not the best in terms of internal drainage. — G.L.C.

SWEETS AND BEEF

August and Irene Andersen operate a farm near Long Eddy, in Delaware County, New York. Major enterprises include registered Polled Herefords raised for the production of breeding stock (50 brood cows), and maple syrup production.

The Andersens make 8000 taps a year . . . 2400 hang buckets and the rest are fitted with plastic lines. Most plastic lines are the vented type, but August has experimented with the unvented kind with its aerial system suspended between the trees.

"The unvented system delivers

a lot of sap, but it can be a pain in the neck to operate," he reports. "Every time a deer goes skedaddling through the woods . . . or a limb breaks and falls . . . there's a repair job to be done."

Tapping starts here late in January, and the system is all set up ready to go by March 1. A snowmobile is used to haul tubing and workers into the sugarbush; snowshoes are worn to do most of the tapping. August uses a very light chain saw for tapping . . . by removing the bar and chain, then replacing the sprocket drive wheel (on the end of the crankshaft) with a drill chuck.

"The saw motor starts more easily than the conventional power tappers we've used . . . and it's lighter (and faster) than the battery-pack rigs," August reports. "However, its very high speed makes it awfully easy to egg-shape the hole . . . or burn it inside so it's cauterized."

Special Drills

The crankshaft of a chain saw turns counterclockwise, so special drills are required that have a left-hand spiral. Drills must be kept sharp . . . and August figures on changing to a sharpened one after 250-300 taps.

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(Continued on page 37)

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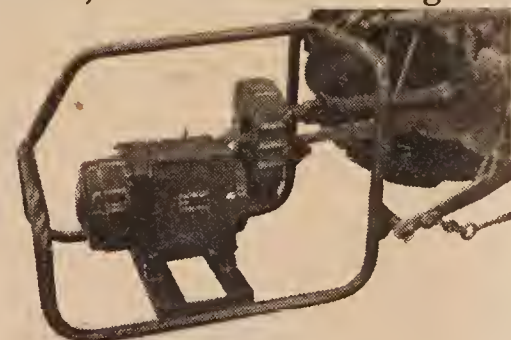
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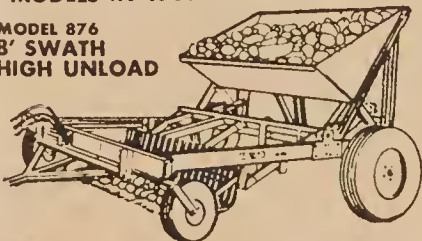
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Mill

(Continued from page 36)
feed every other day," he says. "I like it fresh . . . you can smell the freshness right in the cart . . . the cows clean it right up. Sure, we could save money using a urea pellet, but we stay away from it."

The Fassetts blend corn, oats and a 34-percent protein pellet to make their concentrate ration. Corn is stored in a big 90-ton bin.

Last year, enjoying a fortunate contract with their ingredient supplier, they were able to make an 18-percent mix for \$61 per ton. This year, after the contract expired, costs rose to \$70. This included an allowance for depreciation and interest. Power cost was estimated at 7 cents per ton. "We think it paid for itself in the first two years," says Ervin of his mill, "but probably our feed grain supplier lost money on that contract."

The Mix-Mill Feed Factory cost them about \$7,000, complete with the receiving unit. A horizontal auger, powered by a 2 hp motor, combines with a 5 hp vertical auger to carry incoming ingredients to any one of the four 10-ton overhead bins. To start the processing sequence, the Fassetts push a few buttons and set a timer.

Grinding takes 20 to 30 minutes per day. The feed components drop from the bins by gravity into a hammer mill powered by a 5 hp motor. The amount of each component metered into the mill can be adjusted by the turn of a dial. To check on accuracy, the mill is calibrated about twice each year. A metal storage bin with a capacity of four tons holds the freshly-ground mix.

The Fassetts buy their oats and corn throughout the year . . . about 30 to 40 tons at a time. About 18 pounds of hay and 40 pounds of corn silage complete each cow's daily diet.

Soybeans

The Fassetts have recently purchased, but not yet used, a Roast-a-Tron . . . an on-the-farm oven for roasting raw soybeans. They hope to buy the soybeans from farmers in western New York and roast them as a replacement for some of their purchased high-protein pellets.

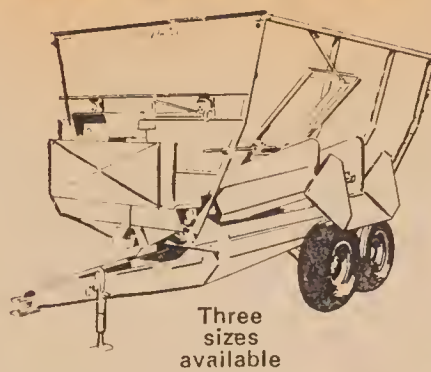
Ervin's not so sure that this will save them any money, but he's hopeful it may further upgrade the quality of their ration. The roasting device is available in both electric and gas models. They plan on buying a 20-ton storage bin to hold beans purchased at harvest time.

A Team

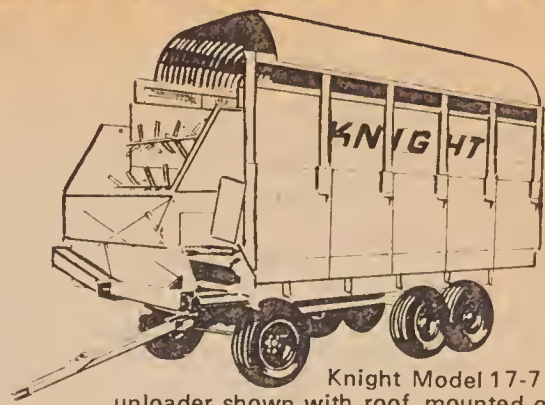
The operating team on the Fassetts' Lime Springs Farm includes Ervin and his sons, Ivan and Gary. Ervin's wife, Gert, who is also secretary of the OHM Holstein Club, does the book work. Ivan's wife, and Gary's wife, help with raising the calves. Gary, a graduate of Cobleskill Ag. and Tech., entered the Marines in June, but hopes to come back to the farm.

Ervin has been on this farm for 27 years, but some of the Lime Springs purebreds can trace their origin back even further . . . to a calf which Ervin had as an FFA project. — William Quinn

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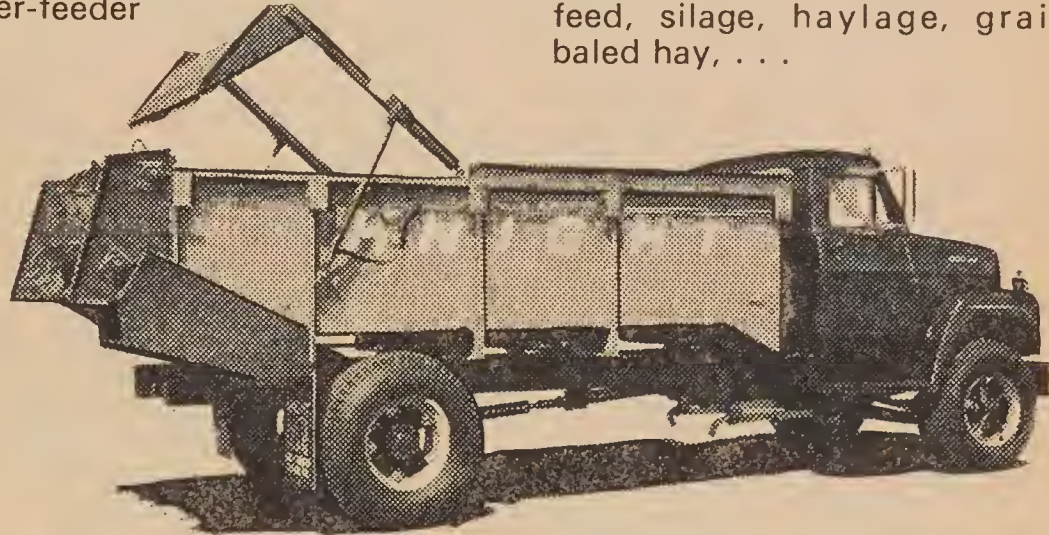


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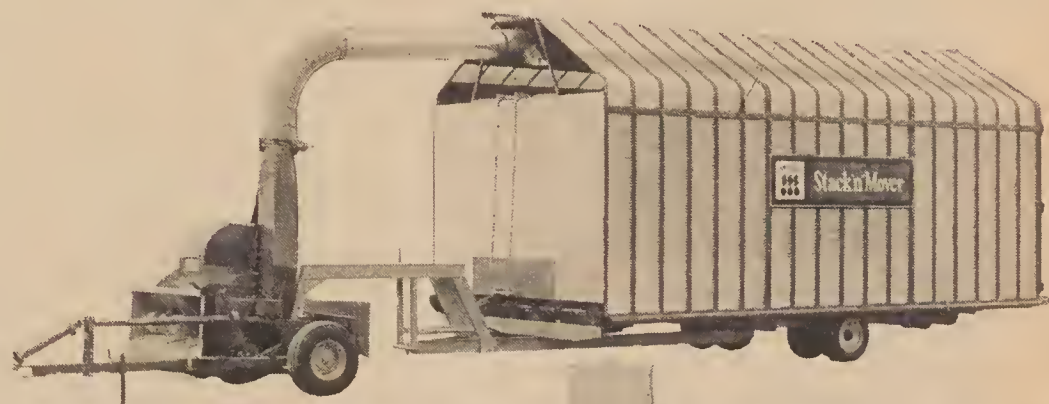
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PEACHES ARE RIPE!

by Alberta Shackelton

Who doesn't look forward to this mouth-watering fruit to be enjoyed so many ways — the bowl of rosy-gold fruit you can't resist as you pass by, the dish of sliced peaches dotted with mammoth blueberries and served with cream or ice cream, peaches in fruit cups and compotes, on breakfast cereals or fruit plates, and in many recipes! To be enjoyed later will be the peach jams and ever popular pickled or spiced peaches and, of course, plenty of frozen peaches stashed away in the freezer.

Sort peaches and use the ripest ones first, keeping in refrigerator until used. Keep under-ripe ones at room temperature in one layer, with good ventilation and away from direct heat and sunlight until ripe. To remove skins easily, drop peaches in boiling water for ½ minute, then into cold water. To prevent darkening when slicing, drop quickly into lightly salted water, sprinkle with lemon juice, or use crystalline ascorbic acid (vitamin C) as directed on package.

DEEP-DISH PEACH PIE

7 cups sliced ripe fresh peaches
1¼ cups sugar
¼ teaspoon salt
3 tablespoons quick-cooking tapioca
½ teaspoon almond extract (optional)
3 tablespoons butter

Your favorite pastry, using 1 cup flour

Place peaches in a 10x6x2-inch casserole. Combine sugar, salt, tapioca and almond extract if used, and sprinkle over the peaches. Dot with butter. Cover with pastry rolled ½ inch thick into a rectangle 2 inches wider and 2 inches longer than the casserole.

Trim, turn under and flute edge. Cut 2 or 3 gashes in pastry to allow for escape of steam. Decorate with pastry cut-outs resembling peaches if desired. Bake in a preheated hot oven (425°) 45 minutes, or until crust is brown and peaches tender. Serve warm or cold to 6 or 8 persons.

PEACH MERINGUE CAKE

1 cup sifted all-purpose flour
1½ teaspoons baking powder
½ teaspoon salt
½ cup sugar
3 egg yolks
½ cup milk
¼ cup soft shortening
1 teaspoon vanilla
3 egg whites
½ teaspoon salt
½ teaspoon cream tartar
¾ cup sugar

Sift together flour, baking powder, salt and sugar. Add milk, egg yolks, shortening and vanilla and beat 2 minutes at high speed with electric mixer, scraping bowl constantly. Pour into a 9x9x2-inch cake pan, greased and lined with waxed paper that extends 1 inch above rim.

Beat egg whites until foamy, add salt and cream tartar and beat until stiff and dry. Beat in the sugar, 2 tablespoons at a time, until mixture stands in very stiff peaks. Spread meringue evenly over batter in pan. With back of spoon, shape "cups" in meringue to hold peach halves, 9

cups for small peaches or 6 for large peaches and larger servings.

Bake in a slow oven (325°) for 50 minutes. Remove cake from pan and cool. At serving time place a peeled peach half in each "cup," fill center with sweetened whipped cream, or fill center with raspberry sauce before topping with whipped cream.

FRESH PEACH SAUCE

½ cup sugar
1 tablespoon cornstarch
¼ teaspoon salt
½ cup boiling water
1 tablespoon lemon juice
½ teaspoon grated lemon rind
1 cup crushed peaches
1 cup sliced peaches

Combine sugar, cornstarch and salt. Gradually stir in boiling water and cook until thickened, stirring constantly. Add juice, rind and crushed peaches and simmer over low heat for 5 minutes. Add sliced peaches and simmer 5 minutes longer. Serve hot over waffles, sponge cake, cottage pudding, pancakes or ice cream. If you wish, substitute ½ teaspoon almond extract for lemon juice and rind.

PICKLED PEACHES

2 pounds sugar
1 quart white vinegar
¼ teaspoon oil of cloves
½ teaspoon oil of cinnamon
8 pounds small ripe but firm peaches (about 30)

Make sirup by cooking sugar and vinegar for 8 to 10 minutes. Add oil of cloves and oil of cinnamon. Wash peaches and remove skins (leave whole). Add peaches to sirup in a large kettle, cook slowly until tender but not broken. Remove from stove and let stand overnight.

In the morning, remove peaches from sirup with slotted spoon. Boil sirup (covered) about 10 minutes or until slightly thickened. Return peaches briefly to heated sirup to warm through, then pack in sterile jars. Pour boiling sirup over peaches, filling jars to top, and seal. Store peaches several weeks before using. Makes about 6 pints.

Note: A semi-cling peach is desirable for making whole pickled peaches. If you wish, you may pickle halves of larger peaches to use for salad or garnishes.

PEACH PRESERVES

2 pounds sliced peaches
1 orange, halved, seeded, and sliced very thin
2 tablespoons lemon juice
1 cup quartered maraschino cherries
1½ pounds sugar
¼ cup pineapple or other fruit juice
½ cup slivered, blanched almonds

Combine all ingredients except almonds, mix well, and cook until thick and clear (10 to 15 minutes). Stir in the almonds and pour into hot, sterile jars or glasses and seal. Makes 5 or 6 glasses.

Freezing Peaches

Peaches in halves and slices have better quality when packed in sirup or with sugar, but a water pack will serve if sweetening is not desired. Select firm ripe peaches with no



Photo: United Fresh Fruit and Vegetable Assn.

Deep-Dish Peach Pie is just one of the many ways to serve fresh peaches. The season for this popular fruit is short, so use peaches often while they're at their best.

green color in the skin. Sort, wash, peel, and pit. For a better frozen product, peel peaches without a boiling-water dip. Slice if desired.

For **Sirup Pack**, use a 40-percent sirup. Dissolve 3 cups sugar in 4 cups water. For a better quality product, add ½ teaspoon crystalline ascorbic acid for each quart of sirup. If hot water is used, cool sirup before using. Sirup may be made the day before and kept cold in refrigerator.

When packing fruit in containers, be sure sirup covers fruit so top pieces will not change color and flavor. To keep fruit under sirup, place a small piece of crumpled parchment or other water-resistant wrapping material on top and press fruit down in sirup before closing and sealing container.

Put peaches directly into cold sirup in container, starting with ½ cup sirup to a pint container. Press fruit down and add sirup to cover, leaving ½ inch space for pints and 1 inch for quarts. Seal and freeze.

For **Sugar Pack**, add ¾ cup sugar to each quart peaches and mix lightly but well (use large spoon or pancake turner), until juice is drawn out and sugar dissolved. To retard darkening, add ¼ teaspoon ascorbic acid dissolved in ¼ cup cold water for each quart of fruit before adding sugar. Pack into containers, leaving head space as instructed above.

For **Water Pack**, pack peaches into containers and cover with cold water containing 1 teaspoon crystalline ascorbic acid to each quart water. Leave head space as above, seal, and freeze.

"EMPIRE SCENE"—a great show

by Augusta Chapman

Gates to the 1971 New York State Fair will swing wide on August 31 for a seven-day run providing fairgoers an exciting look at the "Empire Scene," theme for this year's Fair. There's more to see and do than ever, and whatever your special interests, you'll find many things to enjoy in the Art and Home Center.

By the way, the Art and Home Center has a new "boss" this year, Mrs. Gerald (Esther) Twentyman of Homer, New York. Esther is an old friend to fairgoers, having been in charge of the Creative Cooking Contest for several years and more recently, Superintendent of the Home Arts and Crafts Department. We think her selection to succeed Mrs. Helen Vandervort is an excellent one.

The 1971 **Food Demonstration Kitchen** will be decorated in patriotic red, white and blue. Complementing the decor will be the theme, Foods in the U.S.A. — Unlimited Selection in America. Five food demonstrations will be given daily, with special guests preparing favorite foods from the many different cultures represented in America.

And, as so often happens, we've come full cycle in the past few years

and gone back to the walk-in pantry of our grandmothers' time. To be really honest, though, I'm sure the pantry featured at the Fair will be quite different from the ones some of us remember!

In the **Home Arts and Crafts Department**, prize winning entries will be displayed in every imaginable category — ceramics, rug-making, metal and woodworking, wall hangings, sewing for all age groups, tailoring, knitting, quilting and furniture refinishing.

Women's Day will be Wednesday, September 1. Dorothy Sarnoff, author, singer and actress (perhaps best known for her role as the head wife in "The King and I"), will be the luncheon speaker. The morning program will include a fashion show and a performance by the Community Starlight Chorus of the Community Baptist Church, West Hempstead, New York. The Starlight Chorus is an all-black choir with 40 members ranging from 4 to 12 years of age.

There's something at the Fair for everyone, so bring the whole family. You'll learn a lot and have the time of your life besides!

American Agriculturist, August, 1971

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9361. Dress with side interest. PRINTED PATTERN, New Women's Sizes 34-46. Size 36 (bust 40) takes 3½ yds. 35-in fabric . .50 cents

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WHAT'S ON YOUR TOP PANTRY SHELF?

by Hazel Andrews*

There it had stayed for many years. After the bridge game I went looking for it. It was still waiting to be useful once more. It will make a most authentic background for my old kitchen tools.

Many "Treasures"

First I found a glass dairy thermometer, with a long string tied to it. That was so it wouldn't get lost in the big churn. I remember the many times I've seen grandmother use it. The cream had to be churned at just 62° or the butter wouldn't separate properly.

There was no refrigeration in those days, so grandmother would get up extra early on the hottest summer days and watch the temperature until it was just right. She used to tell me there was a proverb when she was young to the effect that the poorest housekeeper was likely to make the best butter. The idea was that if the house had to be all spic and span first, the cream would be too soft to make good butter. Times do change!

Then I found a long hand-made fork with two tines. This, my mother-in-law said, was used by her grandmother to toast cheese over the open fireplace as a fitting ending for her simple meals.

There was a wooden-handled affair with two tines about 8 inches apart for lifting a pie out of the oven. There were small cooking forks of steel with tines as sharp as a needle, so long had they been used. One of these I still use to try vegetables for tenderness. The new forks break a potato in pieces just testing, but not my old sharp one!

On my shelf was a graceful grafting iron. It had two curves, one to hang it on the tree where you were working and another on which to hang a small pail with your other grafting tools. There was a small tin nutmeg grater, with a little box on top to hold the unused nutmeg. I remember well using that, and it always makes me shiver to think of the skinned knuckles that came from trying to use the very last bit of nutmeg.

Here's a trivet that held the hot flatiron after it was rushed from hot stove to the ironing board and used furiously to get the most out of the heat. There's even a three-piece set of "sad-irons" on the shelf, but they'd

(Continued on page 44)

GARDEN TALK

by Katy and George Abraham

Tomato Problems

August is usually a dry month, and with it comes blossom-end rot of tomatoes. A dry, leathery rot forms on the bottom of the fruit during dry weather. It's worse on staked tomatoes and those which are not mulched, since the problem is tied up with a lack of water in the soil. It's also tied to a shortage of calcium, which in turn is brought about by a water shortage.

Control — A mulch of straw, peat, grass clippings, etc., and lots of water will prevent blossom-end rot.

Poor fruit set also shows up now, and you can blame this on low night temperatures, as well as prolonged hot, dry spells. Cracked tomatoes occur when a dry, hot season is followed by rain. Some varieties such as Glamour are crack-resistant.

Leaf curl is common on pruned and staked tomatoes, especially on hot days and following heavy rains. When a tomato plant grows in a shoestring fashion, you'll know it's a virus and there's no control. Pull the plant and burn it.

In short, maintaining a good level of moisture in the soil is important for getting good fruit set and high yield. If you have plenty of water, use a sprinkler or a soaker. Irrigation at time of blossom drop has nothing to do with the fruit-set problem.

All vines and no fruit is a common complaint. This is due to shade, poor pollination, and rich soil. It's possible to get a variety such as Rutgers into an over-vegetative state (all leaves) much more easily than some of the earlier varieties.

Evergreens Shed Leaves

Don't fret if you see some yellow leaves on your evergreens now. Many, including taxus, arborvitae, hemlock, etc., are shedding old leaves at this time. Shedding starts from the inside, so it's nothing to worry about. Keep your evergreens well watered and syringe the foliage on hot days to keep down spider mites.

Divide Oriental Poppies

Now is a good time to move or divide Oriental poppies, since they start next year's growth soon. Oriental poppy has a tap root, so don't expect to get a large ball of soil to go along with the plant.

When roots are 12 to 14 inches long, cut them off 6 inches below the crown and plant these cuttings too. You'll get double the number of plants this way. A 6-inch root as thick as a lead pencil will produce one bloom next spring. Place the pieces about 2 feet apart, making sure the end of the piece nearest the crown is about 1 inch below the surface. You'll see fresh green leaves in about a month.

African Violets

America's No. 1 plant has 1001 problems. Here are a few troubles we've been asked about recently.

Leaf bleaching is due to excess light or lack of nitrogen. Move plants

to a darker window. Too much light also causes mushy spots on foliage. Grayish foliage shows a lack of nitrogen. Lengthening of stem is due to overwatering and to inadequate light.

Wilted or curled leaves are associated with rotting of stem, often caused by accumulation of fertilizer salts on rim of pots. This happens when plants are watered from below. If troublesome, wrap wax paper or aluminum foil on edge of pot or dip it in wax.

When the leaves droop, check soil or roots to see if the crown is rotted. Crown rot sets in when drainage is poor. If rot is present, cut out the diseased portion and re-pot in a sand-peat mixture, perlite or vermiculite. Wilting can also be due to poor soil, too little water, acidity, or to the temperature being too hot and dry. Often wilted leaves can be revived by placing in water overnight and then use them as new cuttings.

Pruning Clematis

What's the best way to prune a clematis vine? First, let's say that a vine which has been neglected for a long time is almost impossible to thin out. Branches are so badly intertwined that you can't separate live wood from the dead.

When the situation looks hopeless, your best bet is to wait until early spring and cut the vine back to within 6 inches of the ground. All new growth will come in, and chances are you'll have blossoms the same year.

If your vine isn't in too bad shape, you can get more and larger flowers if the vines are cut back lightly after each flush of blooms. Most varieties will give three flushes of bloom if you trim them some each year, apply ample moisture, and mulch them each summer.

Coleus — Handsome Foliage

If your coleus produces flower buds, keep them pinched off so plants will be nice and bushy. Pinching consists of using your thumb and forefinger to snip out the floral spike found in the center of the plant. When it comes to colors, you can't beat coleus, especially where you have a shady situation. Loosen up the soil around your coleus (avoid digging deep) and give liquid feeding every three weeks.

AA Garden Clinic

A reader writes, "Please tell us what causes those brown spots on the leaves of our chrysanthemums. Also, the blossoms on some only open half way."

Answer — This is the work of the tarnished plant bug villain, which stings the buds and blossoms, causing them to open only half way. They do this to dahlias, zinnias, and other plants too.

Control — Spray with malathion or Sevin, covering buds and leaves.

American Agriculturist, August, 1971

LAST YEAR I climbed on a chair and from that to the broad counter shelf in my big old-fashioned pantry. I thought that since I was getting so ancient, perhaps I shouldn't climb to such heights any more; I'd better just let those things gather dust. But I was sure many of those articles wouldn't be recognized by members of the younger generation who would remove them, so I wrote little tags to tie on and explain. "This long red rubber tube with the rubber funnel at the end is for giving a calf an enema." And so on.

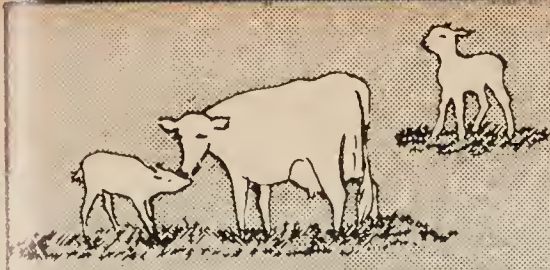
Then last fall I was asked one evening to substitute in our neighborhood bridge club. We went to a near-by town and to a home where I'd never been before. In fact, the owner had been there but a short time.

A friend had given her a house gift of a pastry board on which were arranged many old-fashioned cooking utensils. It made a wonderful conversation piece. Right away I thought of my top shelf and what a pastry-board arrangement I could make from my collection!

I knew there was an old pastry board my mother-in-law had used since her grandmother's day. When I first came here, I used it too. There was a crack down the middle where the two boards had been joined. Every pie crust I rolled had a hump across it. Each time it was washed, I had to scrape it out with a paring knife to get it clean, so the crack got deeper and deeper.

The first auction I attended where there was a marble top from some old bureau, I bought it, and henceforth the marble top was my pastry board. The old board went to the woodshed. I told my husband he could chop it up, but he didn't. Said it was "old." It was that all right!

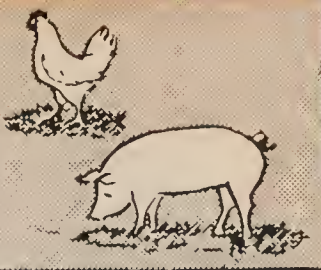
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American Agriculturist, August, 1971

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GINSENG SEEDS, for planting. \$6,000 possible growing 1/4 acre. Full information, price list. Write: Blueridge Ginseng, Route 1, Box 425-A, McDonald, Tennessee 37353.

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QUALITY GRADED HAY & Straw, all kinds shipped or trucked anywhere. Desmond Hay Service, Box #402, Bloomfield, N. J. Tel. (201)748-1020.

HAY — ALL GRADES delivered from Central New York. When writing give telephone number or call 518-994-5111. Snyder Petroleum, Inc., Box 227, Fort Plain, New York 13339.

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EXTRACTED HONEY — Clover, Buckwheat or Fallflower, 5 lb. container \$3.00; 3 - \$7.00; 6 - \$12.25. 60 lbs. Buckwheat or Fallflower \$17.25. All prepaid 3rd zone. We use stainless steel extractors and tanks, Lang Apiaries, Box A, Gasport, New York 14067.

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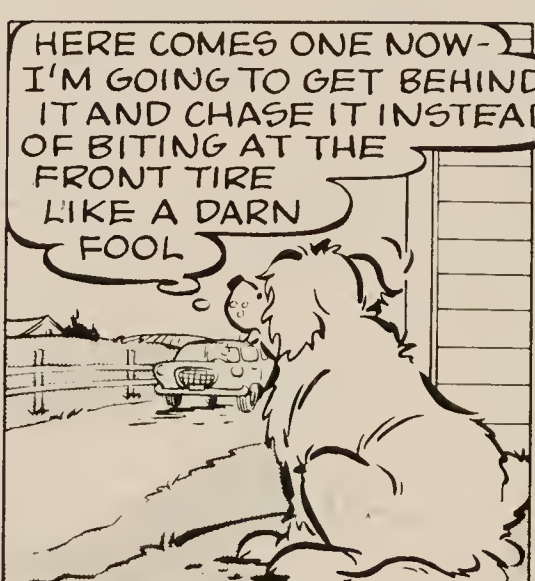
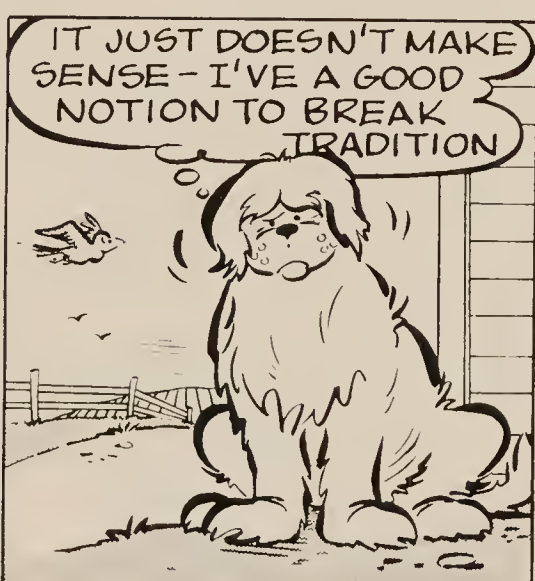
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CITY _____ STATE _____ ZIP _____

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RURAL MAIL SHOP



Pantry

(Continued from page 40)

be pretty heavy to hang on a board for decoration. I could hang the handle at least; I'm sure many wouldn't know what it was for. The handle was interchangeable to use with the three irons, which were of different sizes. The story that goes with these is that one of the young men in the family gave them to his mother for a Christmas present, to make it easier for her to iron his white shirts in his courting days.

A straight stick, perhaps 15 inches long and flared at one end, was known as the "pudding stick." It stirred the morning porridge for many years.

The next thing I found was a "husking pin," a wooden peg about four inches long, square on one end and sharply pointed on the other, with a strap of leather nailed to the blunt end. The point slips through a slit on the end of the leather strap to make a loop for the thumb. The sharp point cut through the husks in the end of an ear of corn, and they could then be stripped off easily and quickly. This I've used often.

Husking Bee

Whoever has not sat beside a barn on a moonlight night in October husking corn has surely missed an experience! As the heavy ears fell into the bushel basket, the Northern Lights often put on a display of sheer beauty in the sky. It always seemed to

me that Mrs. Santa Claus was shaking out her silver tablecloth, with green, red and blue crumbs flying all across the northern sky.

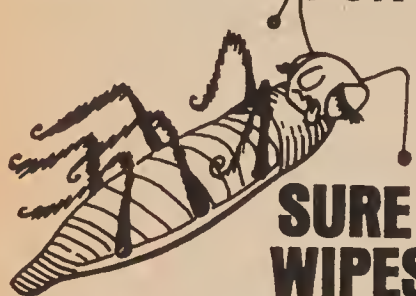
Over in the corner on the shelf was a bee smoker, used to quiet the bees when someone wanted to raid the hive for a dish of honey. A few woolen rags put into the smoker and lighted with a match will smolder for some time. Pressing on the accordion-like sides will give the amount of smoke needed. It must be quite a trick to get just the right amount, making the bees sleepy instead of stinging-mad.

There was a good sized paper bag on that shelf, filled with tarnished small sleigh bells and bits of broken strap. They belonged in days gone by to a string that went around the horse's middle and made a jolly sound on a snowy sleigh ride. They looked like such a bunch of junk I was afraid someone would send them to the dump when they were cleaning some day.

So I sent them to the city to be re-plated in shining brass. Then I visited a leather goods store and bought a nice wide black strap. A son put the bells on the strap, and now all 38 of these bells glow on the living room wall on a bell-pull seven feet long. I know no one will ever throw them away. Right now the grandchildren are registering requests to inherit them.

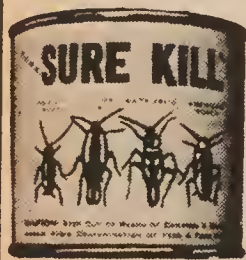
Some rainy day, why not find out what's on your top pantry shelf?

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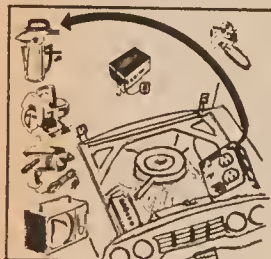
SURE-KILL 5-YEAR TREATMENT only \$3.98 (enough for 6 to 8 rooms), 2 for \$7.35 (12 to 16 rooms), plus 60c postage and handling.

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Tiller Users!



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Mail us your film on this money-saving introductory offer, and receive the most beautiful jumbo color prints you have ever seen.

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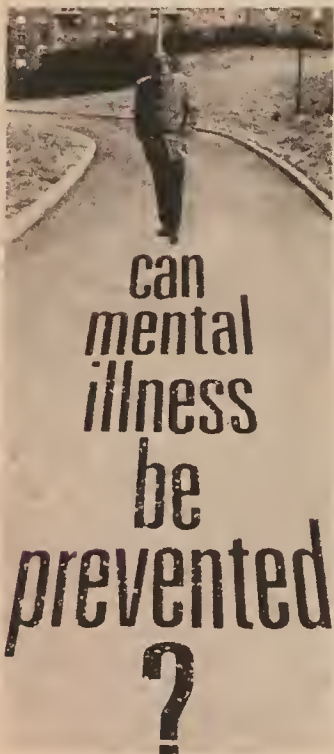
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TIRES! truck farm
trailer **FREE CATALOG**
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yes...

by improving environmental conditions so good health, both physical and mental, has a chance

by providing adequate medical care to expectant mothers and new babies

by realizing that behavior which is simply different is not illness—and should not be treated as illness

by supporting appropriate mental health educational programs

by joining your local Mental Health Association

We don't have all the answers. But we have some.

And with your help we're going to find some more.

**the national association
for mental health**



String-savers, here's where it's at! It took more than 117,000 feet of baler twine . . . and ten weeks of part-time work . . . for George Bucher, professor of art at Susquehanna University, Pennsylvania, to make this 1,100-pound, 12-feet-high creation he calls, simply, "Ball." The twine was wound over a wood lathing frame turned by a huge spindle arrangement. Individual layers were painted with polyester.

"Ball" was built at Sperry Rand Corporation's New Holland farm equipment division, and later was unveiled as an art exhibit there. If Bucher can figure out how to move it, "Ball" will soon be on display in a New York art studio.



Roll-over bar protects you in event of tip over... The metal canopy shields operator from sun and rain. The bar is designed to limit the tractor roll to 90 degrees rather than allow it to roll over on top of the operator. A seat belt prevents the operator from being thrown from the tractor.



Metal cab protects operator from the elements. Air conditioner cools cab in summer, heater warms cab in winter, and blower provides clean, filtered air the year around. Early cabs were often noisy and uncomfortable, but sound deadening is included in the basic designs of current quality cabs.



Padded seat with arm rest is one of the most important items in operator comfort. These deluxe seats usually include improved suspension system to absorb the shock and jolt of tractor operation, as well as convenient means for adjusting seat location for best comfort of different-height operators.



Hand grasps and step assist in getting aboard the tractor. In the absence of suitable hand grasps there's often a tendency to grab any convenient control lever, or the steering wheel. This practice often overloads and breaks these devices. Not again the deluxe seat that helps prevent operator fatigue.

Fit as a Fiddle



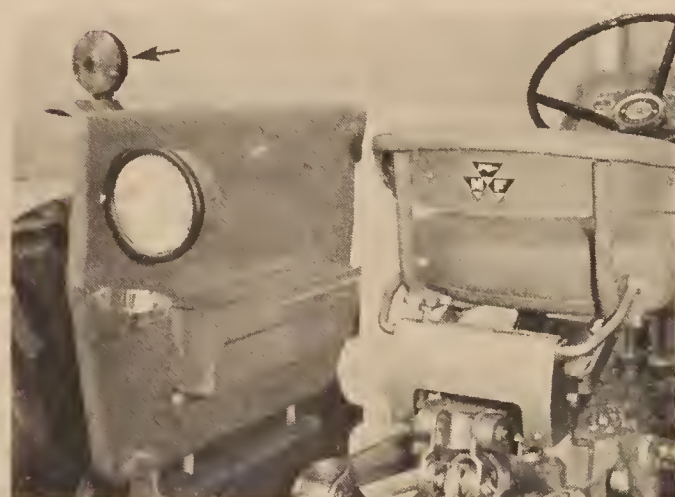
... after a day on the tractor

**Tractor features for
SAFETY, COMFORT, CONVENIENCE**

by Wes Thomas

Many farmers spend more hours per year on their tractor than they do in their easy chair in the living room. To make these tractor hours more comfortable for the operator, to make his job safer, and to make the tractor more convenient to operate, tractor manufacturers now offer a wide variety of optional equipment items. In some cases, these items must be factory-installed when the tractor is assembled. Often, however, they can be added to an existing tractor.

All of the items are not available on any one make of tractor. In many instances, however, your local dealer will be able to provide similar items for your tractor.



Flashing light on fender alerts motorists on the highway to the danger of a slow-moving vehicle on the road. Regulations vary among the different states in regard to these lights, so check to make sure that you obtain the arrangement that meets your state's requirements (whether red or yellow, for instance).



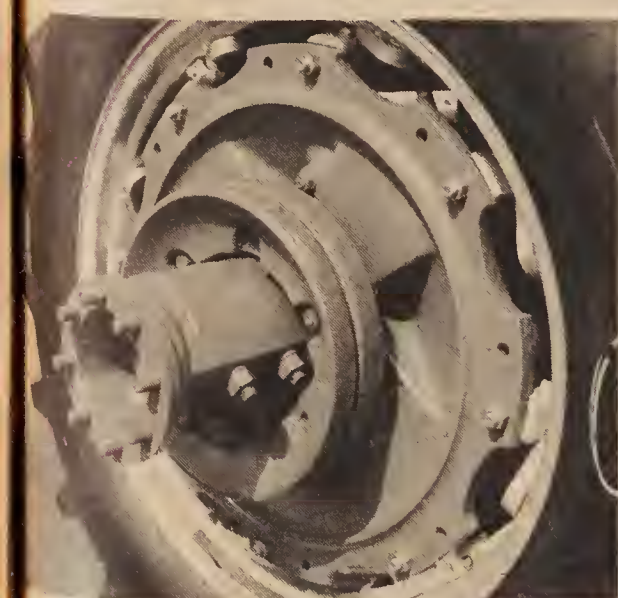
Console at operator's right includes levers for concentrated control of a number of different tractor operations. Usually included are levers for the control of the three point hitch, remote cylinders, power take off, and in some cases, the throttle and gear shift lever. Sorry, no TV screen as yet!



Power-adjusted wheels permit easy changing of rear wheel spacing to match row-crop interval, without jacking up the tractor. In principle, all of the various arrangements involve some means of rotating the wheel web along a helix to move it in and out in relation to the tractor tire.



Foot accelerator works in conjunction with regular hand throttle to make speed changes easy in operations requiring frequent changes, such as front-loader operation. One hand steering, one operating the hydraulic controls... and the foot needed on the fuel control!



Spacer hub provides increased space between inner and outer dual wheels. When combined with the necessary length axles, the spacer hub permits the tires to be positioned to match the spacing of narrow-row crops. Dual rear wheels are becoming increasingly popular.



Dual lights... in this case, recessed in the rear fender... permit good illumination of both the nearby working area and the farther-ahead driving area. Because of the differing requirements of the two light patterns, it's difficult to combine them into one lamp.



Pivoted steering column allows wheel to move up and forward for standup operation, and down and back for normal sit-down driving. Although safety experts frown on standup operation of tractors, most operators do so occasionally to relieve muscular fatigue caused by sitting for long periods.



Power brakes apply a portion of the engine's power through the hydraulic system to control the stopping of the tractor. As tractors become ever larger, a hydraulic boost on both braking and steering becomes more welcome to farmers... and to the wives, who occasionally drive tractors too!



Gayway Farm Notes

by HAROLD HAWLEY

MORE CORN

For years many of us have been critical of those who bought farms and paid for them without farming them simply by putting them in a government program. This year's program hopes to do away with that evil. The diversion feature has been eliminated, but 20 percent of the combined feed grains base acreage must be set aside for the farm to be eligible for support prices on half the acreage. Payment is made for feed grain production.

Payment is also made for whatever acreage is eligible even if no crop is grown, but lack of production will cause loss of base acreage. All this adds up to a very real incentive for a lot of people to grow corn this year for payments and to protect and perpetuate a base.

Now for a guy like yours truly who chooses not to participate in any government program this has at least two effects. One, he must report his acreage of feed grains whether in the program or not in order that his base not be reduced. The second impact will come at and after harvest time. To whatever extent the program increased acreage and production of corn—to that extent the price of corn will be weaker.

My gripes are twofold. I hate to report my acreage just to preserve a base which I hope never to use but which I might have to use to establish my right to grow a certain acreage in some future year if the program gets changed.

The other gripe is even more real. I hate to pay taxes to encourage additional production to lower the price of the commodity I grow and sell. Of course, I could join the crowd and the program but I'm not about to do that.

It's difficult to guess how much acreage will be up. Locally, it doesn't look like over 5-10 percent. In some townships, friends report a 20 to 30-percent increase. In any event, more corn will hurt prices next fall.

NEVER UNDERESTIMATE THEM!

Some had about counted out the alfalfa weevil, what with a decline in numbers last year and a reported buildup of the parasitic wasp that will be the control most favored.

Well, we rode along with little evidence that there was to be big trouble until we finally got a couple of hot days in early June. Bingo! Inside of three days they were everywhere!

We sprayed some fields of standing, cut some, and sprayed the stubble. Certainly they were as bad as in any previous year. The only difference was that we have become used to them, so . . . as with weeds . . .

we did what had to be done without all the panic that accompanied the whole operation three or four years ago.

SHORT HAY CROP?

In early June, people locally were convinced that our hay crop could be very short. After all, the season was late and all crops were backward.

Our older seedings seemed to bear out the predictions. The blossoms were real late . . . with June 16 being the first we observed . . . and growth was only moderate. The new seedings, clear-seeded and fed heavily last year, really shook us. They were real thick, tall and wonderful, with yields as good as we could expect.

It was in these clear stands that the weevils seemed so much worse. In some fields with brome-grass-alfalfa mixtures, there seemed to be much less damage to the alfalfa. At any rate, we didn't spray some of these fields and the weevil numbers and damage seemed to reach a level we could tolerate and then leveled off there.

NO TENANTS

Our nice new martin house stands empty except for occasional attempts by sparrows and starlings to move in. We have kept them pretty well discouraged, hoping to keep an open door for the martins. With several houses in the area operating at or near capacity, we are counting on picking up some birds later in the season when the first hatch moves out and sets up housekeeping. At least, we assume they do this just as our barn swallows do.

One bright spot in our bird picture is the rare glimpse of a hummingbird that now and again visits the flowers in our yard. They are so fast and exciting, at least to us, we wish we knew how to attract and hold them!

ROADSIDE SURVEY

It's right interesting to note the hay equipment out in the fields and around buildings. It is not hard to conclude at least two things. First off, the number of new racks to catch kicker bales suggests the most of what hay is baled will be kicked back into a basket wagon, as contrasted to being loaded by manpower.

Equally obvious is that a larger and larger percentage of first-crop hay finds its way to the cow via a forage harvester and wagon to a silo of one kind or another.

We don't too often get away on weekdays during rush periods, but one Saturday in mid-June we were on the road. It was a day following a rainy night. Forage harvesters were out and going and those with

balers were out of business or spending the time beating the leaves off the hay trying to get it dried out. The weather we so often get here in the Northeast certainly encourages the expenditure for equipment and storage to chop the hay crop.

Like everything else, the trend is toward bigger and better forage wagons, roofs and all, but perhaps even more important is the acceptance of the higher-capacity, many-knived choppers. Immediately, one goes this route, he begins to think about more and more power up front.

It used to be that one went to a bigger tractor to speed up his heavy job—plowing. Now the real justification, in my book, for a 125-150 hp tractor is its ability to speed that hay-chopping job. On many farms, the hours saved here can be as important as those saved by going to a little larger plow or disc. Put the two together, and it's not hard to explain the great interest in these high-priced monsters that we'd all like to own if we could just think of enough ways to justify the investment.

We've used a six-knife chopper with a re-cutter screen for chopping hay and for high-moisture ground ear corn. It works pretty well, but if the addition of a few more knives would be a fair substitute for a re-cutter screen that's the road we'll consider next time around. A re-cutter screen not only needs adjusting, but it obviously eats up a lot of power and cuts capacity. Up till lately, it was the only way we knew to get the fineness of cut we wanted. There just may be another way.

BLOOMING BEAUTIFULLY

A recent trip to an adjoining county was rewarded by a rare and pretty sight. It used to be commonplace to see a field of oats a foot high with a canopy of yellow mustard blossoms almost concealing the crop; with the advent of 2,4-D this has become a rarity.

This particular field was a long, narrow strip across a sidehill between a field of alfalfa and one of wheat. From across the valley, the yellow blossoms contrasted to the green of the other two crops and made a really special view. I hasten to say this was more enjoyable than it would have been if that mustard had been going to seed in our own fields!

LET THERE BE SALESMEN

One thing that gets through, even to a slow learner, is that if one mentions interest in a product he will soon have a salesman willing to talk to him about it. In this case, that will be just fine.

Nothing we've read in a long time has interested us as much as Winston Way's recent article in the AMERICAN AGRICULTURIST about storing corn or grain without drying it by adding various amounts of propionic acid or acetic acids.

We are at the point of needing to speed up our corn harvest. A combine would obviously beat a two-row picker. We resist the thought of trying to dry that much grain fast enough to keep up with a combine. The investment in a dryer and

its fuel, bins, conveyors, and finally in storage for the dried grain would be just enough to take the fun out of the crop for a few years.

Anyway, if we could treat the grain, we could convey it onto a flat storage from which it could be scooped up to load it out when it was sold. The total investment could be kept reasonable, and the ability to store the grain as fast as it was harvested should be assured. We've got to be interested in anything that offers the savings in time and money that this idea seems to do.

At this stage, one's mind gets to wandering a little. If this acid can be sprayed on corn to keep down the mold and bacteria, would it be possible to spray it on chopped hay or corn silage and store them in a big stack under a roof?

We're too uninformed on this yet to even realize how silly such a question may be. But my gosh, if there is any way to reduce storage and handling charges we're sure going to look for it!

PICK YOUR OWN

With harvest labor scarce and costly, it's little wonder that more and more fruits and vegetables are made available to the housewife on the tree or vine, or in the field.

Now comes along a real enterprising soul with this sign at the roadside: "Worm Hunting-Self Service—Shovel Furnished."

And why not? It makes a lot more sense than one might expect. If the city dweller is out for exercise and recreation, here is another opportunity. It doesn't do a bit of harm, but I'm always amazed at how much digging takes place along the edge of some of our corn fields which border the back of someone's yard or garden.

GETTING AWAY

We've long recognized that a vacation is good for us all. Likewise, the change of pace that Sunday brings . . . whether it be just a quiet Sunday at church or out to dinner or a ride or whatever . . . can be a real battery-charger.

With the advent of campers, trailers, and the various other portable home devices, it has, of course, become commonplace for folks to spend the weekend at a variety of locations.

Now we hear of a new variation which makes a lot of sense. Instead of battling the traffic for miles and miles . . . and ending up at a campsite not greatly different, except farther away . . . several families we know go to a public campsite within five miles of home. They are away from the phone and business, and have all the opportunities to enjoy the camping outdoors that they would have if they drove halfway across the State.

It is a real pleasure for us to note that private campsites are doing well. We've long thought that the State should be out of the campsite business, as well as out of other recreational activities such as ski slopes and golf courses.

We've watched with amazement to see a weekend crowd fill up a camping area in our neighborhood. Imagine four or five acres of new neighbors almost overnight!

American Agriculturist, August, 1971

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Homer Beardsley, Trumonsburg	\$21.00
(insurance payment)	
Mrs. Evelyn Logree, Churubusco	3.00
(refund on order)	
Mrs. Spencer Crowner, Noturol Bridge	26.40
(refund on order)	
Mr. Cecil Humphrey, Shermon	10.40
(certificate cashed)	
Mr. Robert S. Tiffany, Wolton	12.01
(refund of deposit)	

PENNSYLVANIA

Mr. John S. Burk, Cochranon	80.35
(insurance settlement)	
Mr. Joseph Allshouse, Brookville	6.00
(refund on subscription)	
Mr. Robert Houseknecht, Muncy Volley	4.50
(refund on books)	

NEW JERSEY

Mrs. John Heller, Vineland	5.50
(refund on kit)	
Mr. Robert E. Godfrey, Morilton	8.75
(refund on subscription)	

MAINE

Miss Virginio Hiitt, Auburn	2.18
(refund on handbag)	
Mrs. Robert Trundy, Hebron	18.70
(refund on returned items)	

MASSACHUSETTS

Mr. Sydney J. Longley, Concord	14.95
(refund on vest)	
Mr. Francis L. Botes, Shelburne Falls	3.66
(refund on subscription)	

RHODE ISLAND

Mr. Peter Backes Flint, Foster	5.00
(refund on subscription)	

LIGHTNING SHAFT

Elwyn Barber, who farms on Scott Road near Homer, New York, recently paid his tuition at the school of hard knocks. It amounted to \$727 . . . hard-earned money paid to some fly-by-night installers of lightning-protection material.

The man who contacted Elwyn went by the name of Edward Carroll . . . probably just for that call, for such types generally have a dozen names. Anyway, "Ed" was pleasant enough and proceeded to convince Elwyn that he shouldn't pass up this special opportunity to get a necessary job done for a low, low price.

Quick Job

The deal was made, and the workmen proceeded to spend a quick two hours at installation on the barn and on a nearby utility building. A casual observer might have been impressed with the cable they were using, for at regular intervals appeared the stickers normally identifying it as approved by the Underwriters' Laboratories.

Just one catch, though, for close inspection would reveal that the stickers all said, "United Heavy Duty Inspected" . . . and have no connection whatsoever with Underwriters.

Elwyn paid by check, and received receipt number 50834 . . . bearing no company address, but charging for installation and 485 feet of cable. The check was cashed early next morning and the vultures were on their way to the next victim. Unfortunately, nobody noticed a license number.

As might be guessed from the installation time, the job was terribly sloppy . . . cable wandering at random hither and yon, with strange loops and turns here and there. The fire insurance company representative got wind of the situation and

was very upset, to say the least, when he saw the "protected" buildings.

Sadly, the Barbers admitted to themselves that they had been "took," and then called in a nearby lightning-protection firm that has been at the same location for many years. These folks took out all the junk previously installed, and did the job right from roof to metal grounding rod. The tariff, of course, was higher the second time around . . . as was the quality of workmanship and materials.

Over the years, both AA's Service Bureau and the legitimate lightning-protection companies have noted that the "gypsies" selling lightning rods invade a territory at intervals of every three to five years. This provides a new generation of gullibles, and also cools the heat generated from the last swing through the territory.

Typically, the "gypsies" drive neat pickup trucks and they have a convincing story about a tremendous bargain. Sometimes they even give written guarantees that promise the heavens above and the world beneath . . . worthless because a customer never sees them (and can't find them) once they depart with the money. A gilt-edged guarantee in triplicate, after all, is still worth only the reliability of the people who run the company giving the guarantee.

Makes Sense

As we've said so many times, it just makes a lot of sense to do business with an outfit having a business location that has been, and will be, in the area for years. Furthermore, to be sure your installing company is supplying you with an adequate protection system, follow these simple steps:

—Ask friends and neighbors for whom the company has done work about the quality of the installation and the service. Ask your insurance agents about them.

—Make sure that the company will give you a signed contract, including the exact cost . . . and assurance of standards of installation equaling or surpassing all the minimum requirements of a Master Label system.

—Determine whether the company maintains a regular inspection and maintenance service.

—Is the company affiliated with the United Lightning Protection Association?

There are many legitimate salesmen traveling the roads of the land, selling products and services that are very much worthwhile. But there are also some human parasites whose purpose in life is to steal from anyone gullible enough not to have a reasonable amount of suspicion.

We've all been hooked by some glib talker, at one time or another. However, most everyone readily admits his successes . . . and diligently avoids revelation of those ego-shattering goofs. Congratulations to Elwyn for his willingness to share his negative experience with others in an attempt to help them avoid a similar loss!

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They put their money and effort where it will put you ahead most. In total capacity, not in gadgets. In basics like big engines and a smooth-rolling 136-inch wheelbase. In the time-saving Drive-in Feeder Hitch which lets you change heads in minutes.

Oliver gives you a positive roller-

chain cylinder drive. Instead of a V-belt. So cylinder speed will hold up under heavy loads.

A tailings return you check from the operator's platform. Not down at the side of the machine. And a stone trap—big enough to really cut down the risk of damage.

Oliver corn heads are infinitely adjustable to match the row spacings. No half-way matching to lose ears overboard.

Above all, simple Oliver combines are the ones with the bugs out.

We think you'd rather have a machine that keeps rolling than one with a flock of warning lights to tell you that you're in trouble.

But don't take our word for the difference. Whatever your crops, we're waiting to prove it. And even our price may be less than you think. Because Oliver goes for guts instead of gadgets.



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BINDER

SEPTEMBER 1971

American Agriculturist

and the
RURAL NEW YORKER

For The
Northeast
Farmer



ECW
ACQUISITION

EDITORIALS

by GORDON CONKLIN



THE CROSS OF OLD

I recently visited the Vegetable Research Farm operated by the New York State College of Agriculture and Life Sciences near Freeville, New York. Research activities of many kinds are in process at the site, and the farm bustles with activity.

Near its center, however, is a quiet place where a big tree casts an afternoon shadow across a small cemetery used during the early and middle 1800's. The headstones bear inscriptions like these:

Alexander, son of Jacob and Susannah Cotentich. Died September 6, 1812 aged 2 years, 4 months.

Barbara A., daughter of George and Ann Tucker. Died April 9, 1845 aged 16 years, 11 months and 19 days.

There are 11 legible headstones here... age at death varied from three months to 67 years... but the average age was 15 years! All but two entered the valley of the shadow at age 20 or under.

Reading these vital statistics from only a few generations ago, I mused upon the fact that "the good old days" were ones when infant and child mortality was terribly high by today's standards. Furthermore, even those folks who made it to adulthood lived for far fewer years, on the average, than is the case today. Nutritional deficiencies... in total energy, and in such necessities as vitamins and proteins... contributed to the limited life span so typical of yesteryear.

Turning from the last resting place of those gone before, I visited with college specialists as we walked among nearby test plots of vegetables. They told me that government-mandated development procedures are now so complicated and expensive that chemical companies do not develop new herbicides specifically for vegetables. They do work on new ones for large-acreage crops (such as soybeans or corn), then vegetable specialists screen them to see which ones might also be usable on various vegetable crops.

Another research worker... a plant breeder this time... commented that a new federal regulation places plant breeders on notice that "significant alteration" of the genetic makeup of a plant variety used for human consumption may impose upon the plant breeder a burden of proof that the change is not deleterious to human health. He went on, "It's impossible to develop new varieties without substantial alteration of genetic composition."

And so these men of science look down the road ahead with bafflement and frustration. They have heretofore taken pride in the fact that their lives have been spent in what they considered to be service to humanity... as partially measured by the fact that today's young people are larger, stronger, and longer-lived than previous generations. The researchers helped create a land literally flowing with milk and honey... and now their efforts are hamstrung and maligned by at least a segment of the very society benefiting from the wondrous horn of plenty that science helped create.

For hundreds of years... aye, for untold hundreds of thousands of years... man lived "close to nature," farming organically, using only the chemicals (such as table salt) created when the earth was born. The grim Horsemen of the Apocalypse have across those same ages relentlessly sought out human victims to crucify upon the crosses of famine and pestilence... killing at least 25 million people when bubonic

plague scourged Europe with the horror of Black Death in the Middle Ages... starving a million Irishmen during the blight-caused potato famine of the 1800's... and to this day bringing agony to millions around the world with malaria, typhus, yellow fever, and many more.

Mankind has collectively been nailed to those ancient crosses for almost his entire existence on this earth. It has only been in the 20th Century that he began to make notable progress in controlling to some degree the insects that plague him... and in developing techniques to increase crop yields so that he could more effectively harness the limitless power of the sun through photosynthesis to fill the hungry bellies of himself and his children.

Some environmentalists loudly push for the outlawing of all pesticides and chemical fertilizers... and for a return to the subsistence agriculture which would be the inevitable result. I say to them... go live for a time in one of the many parts of the world where organic farming is **even today** the only type of agriculture that has been practiced since the planet Earth became habitable. Find out first-hand the desirability of the course you advocate... and pay personally, along with the underprivileged millions of this troubled world, the price for following it. But don't try to force all men back onto the crosses from which they only recently partially escaped!

As William Jennings Bryan would have put it, "Thou shalt not crucify mankind upon the cross of old!"

UNIT PRICING

Whenever I go into a supermarket (which is seldom), I am interested in cost per ounce... so I can compare the price per unit of Washo versus Slammo detergent, for instance. In common with most consumers, I resent the occasional "Giant Economy Size" that in reality charges more per unit than does a smaller package of the same product.

However, some Cornell research of customer buying patterns at selected supermarkets reveals that unit pricing doesn't really do all that was claimed for it. In stores instituting unit pricing, no significant shift was discovered in purchase patterns as a result... even though customers **could** more easily compare prices per unit.

Supposedly, unit pricing will help low-income families find the best buys for their meager supply of dollars... but the researchers found that these families are the least aware of it. As with every new development, the folks already ahead of the game are the ones most likely to take advantage of new information... that's how they got ahead of the game in the first place!

I remain solidly in favor of unit pricing... believing that it is the right way to do things... but also believing that it is not a magic formula that will motivate everyone toward the most efficient use of their money.

HIRING YOUTH

Some college students have approached me for information on how to find greater employment opportunities for youth... especially those 14 years of age and older. They're exploring reasons why young folks have problems finding jobs. Especially puzzling to them was the fact

that farmers universally comment that they're short of help... yet many young people even in rural communities are without the summer jobs they seek.

My reply was that farmers in the Northeast do hire a considerable number of young people, especially those 16 and over.

I further commented that complex rules and regulations are the stumbling block to some farmers... there are dozens of ways to get in trouble with the law when hiring minors, and the paper work routinely involved in hiring them is time-consuming. Furthermore, modern farming involves heavy investments in large equipment that can be severely damaged if operated by an inexperienced person. Time was when a young person could help set harvested grain up in shocks, but operating a \$10,000 self-propelled combine is a horsepower of an entirely different color!

Finally, it seems to me that an ever-increasing minimum wage eliminates some people from being considered as employers. A farmer must have some reasonable expectation that the young person can actually earn what he must by law be paid... and some of them won't, or are not able to.

I'm not sure my explanations filled the bill as far as the young visitors were concerned. Have I missed some of the reasons you know about that inhibit hiring more young folks from 14 through 17 years of age?

I'd appreciate knowing your experiences... including those that could be labeled "success stories" as far as youthful employment is concerned.

NEW AND YET OLD

I browsed through a bound volume of the September, 1871 *AMERICAN AGRICULTURIST* the other day, and observed some comments as modern as tomorrow:

"If farmers are not making as much money as they have a right to expect... and, as a rule, such is the case... it may be well to recollect that we all anticipated 'hard times' after the war."

...

"No fertilizer exists in such abundance or can be produced in condition fit for use so inexpensively, as lime."

...

Readers were asking about how to build pumps for drawing liquid manure from a "manure cistern"... shades of 1971!

...

"Sunday headaches are a reality... a dreadful reality... as many persons know to their sorrow."

...

"Healthy boys love the dirt."

THAT REMINDS ME...

The woman was on her first ocean voyage and heard that the ship was to cross the equator.

She pestered the captain to point out the line that marked the equator.

The captain impatiently explained, "Look, lady, there is no line on the earth's surface marking the equator... I don't care what all the maps show!"

The tourist persisted, however, and the captain finally decided on a scheme to mollify her.

"All right, take these binoculars," he said, "and look right over there."

As she gazed through the glasses, the captain plucked a long hair from his head and stretched it unobserved in front of the lenses.

"Oh, Captain," she exclaimed, "I see it now... and, by golly, there's even a camel walking along it!"

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American Agriculturist, September, 1971

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Del R. HallAdvertising Manager
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OUR COVER

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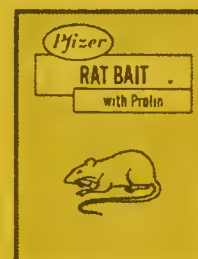
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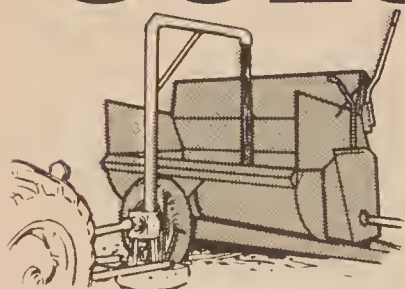
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What's NEW in the FIELD

by W. D. Pardee



HIGH MOISTURE CORN

INTEREST in high moisture corn is strong this fall, as many farmers look at extra acres of corn. This makes sense for farmers who grow all the corn silage they can feed, and have extra acreage left over to harvest for grain. Let's take a look at the high points as I see them . . . from the cow's viewpoint, then the plant's, and finally, that of your own pocketbook.

First, let's define what we mean by high moisture corn. The term doesn't mean the same to all people. In this article, we'll refer to high moisture shelled corn (HMSC) . . . or to high moisture ear corn (HMEC), which includes the whole ear, ground and stored in tower silos at moisture levels high enough to cause fermentation. In a sense, HMEC is like silage without the stalks or leaves. But it's really a high-energy concentrate that can replace purchased grain.

From the cow's side, recent research has shown that high moisture grain corn makes an excellent dairy feed, roughly equal to dry corn. Several trials with beef steers look even better, showing an increase in feed efficiency with high moisture corn. Studies with high moisture ear corn show it fully as good as dry corn-and-cob-meal, on a pound-for-pound dry matter basis.

Feed quality depends strongly on good storage to prevent spoilage, and on coarse grinding to improve feed efficiency. We haven't space here to discuss the many kinds of grinding mills available. Check these out before making your choice with your equipment salesman, your Extension agent, and with your neighbor who has one.

The Plant's Side

The corn plant continues to stow away dry matter in its kernels until moisture levels get down to about 35 percent. Below this, they continue to lose water, but there's no new feed value coming from the plant into the kernel. Some hybrids shut off a bit wetter, others a touch drier

. . . but 35 percent is still a good working rule of thumb.

Normally, grain in the field will dry about one-half percent per day. That's an average figure; on a warm, dry October day with low humidity you may lose a full percentage point. But plug in a day of rain and damp weather with the husks continually wet, and your corn may not dry at all! Make that a week of wet weather and your corn may even go up in moisture!

Tables are available to compare high moisture corn with dry shelled corn, the latter normally figured at 15.5 percent moisture.

Amount of high moisture corn required at different moisture levels to supply the same dry matter as 100 lbs. of dry shelled corn at 15.5% kernel moisture

Percent kernel moisture	Pounds of ear corn	Pounds of shelled corn
15	125	100
18	136	104
20	145	106
22	156	109
24	166	112
26	177	115
28	188	118
30	199	121
32	212	125
34	223	129
36	235	133
38	246	137
40	258	142

Buying and Selling

Growing your own is one thing, buying is another. Unless this year's crop gets a move on, there may be lots of high moisture corn for sale this fall. There'll be bargains available, but you'll need to watch your figures closely. In particular, you'll want to plug in allowance for the moisture content before you start dickering for a price.

The second table gives some rough figures that will help you get started bargaining, whether you're buying or selling.

(Continued on page 5)

Price of shelled grain at 15.5% moisture		Value of one ton of high moisture corn at varying moistures					
Per ton	Per bushel	Shelled grain			Ground ear corn		
		25%	30%	35%	25%	30%	35%
\$44	1.23	39.07	36.48	33.84	33.66	31.11	28.86
\$46	1.29	40.85	38.13	35.37	35.19	32.52	30.18
\$48	1.34	42.62	39.79	36.91	36.72	33.94	31.49
\$50	1.40	44.40	41.45	38.45	38.25	35.35	32.80
\$52	1.46	46.18	43.11	39.99	39.78	36.76	34.11
\$54	1.51	47.95	44.77	41.53	41.31	38.18	35.42
\$56	1.57	49.73	46.42	43.06	42.89	39.59	36.74

American Agriculturist, September, 1971

To use the table, check your local price for dry shelled grain, then note the moisture of the corn you're considering. For example, suppose you can buy dry corn at \$50 per ton. Then 30-percent-moisture corn should be worth about \$41.45 in comparative feed value.

High moisture corn can make sense, but push your pencil before you leap. Figure in all your costs as well as your savings. County Extension agents can help you plug in realistic figures for your locality, and help you decide whether high moisture corn has a place in your program.

Harvesting

High moisture corn helps you harvest earlier. You can start when the grain hits 35-percent moisture, while the top level for crib storage with forced air is 30 percent, and narrow crib storage is 25 percent. This lets you start two or three weeks earlier, which usually helps you get ahead of late-fall headaches like stalk lodging, ear rots, and wet fields.

Best range for harvesting high moisture corn depends on whether you're harvesting grain alone, or whether you're including the cob. If it's HMSC you're after, 26 to 30-percent moisture is ideal. You can stretch either way a bit, but above 35 percent you'll get poor shelling and considerable damage to soft kernels. And below 24 percent, you'll get poor fermentation in the silo and run the risk of spoilage. Best bet is to start when your corn reaches 35 percent. It'll dry still more during the days you're harvesting.

Cob Wet

If you're picking your corn, cob and all, to grind it into the silo, you'll want to consider cob moisture. This runs 10 percent higher than the kernels, and the cob makes up nearly 20 percent of your dry ear weight. Best harvest moisture for HMEC, including grain and cob, is between 30 and 34 percent. At this level, you'll get your lowest field losses and need less horsepower. Figure your top level at 38 percent, and your bottom limit at 24-percent moisture.

In sealed or airtight silos, you can safely go a touch lower, down to about 22-percent moisture, with both HMSC and HMEC.

Feeding

Plan to feed out high moisture corn on a regular basis or you'll get substantial surface spoilage. During winter months, cold weather holds back spoilage, but you should still plan to feed off at least one inch per day. Summer heat speeds up spoilage so figure on removing at least two inches per day in ground material, or three inches in unground shelled corn.

High moisture corn will heat and mold quickly once it's out of the silo. Plan to feed it within a few hours. Give livestock only what they'll clean up between feedings, since high moisture feeds will mold when left in the bunk.

If you're feeding high moisture corn, don't forget to allow for the moisture in computing your rations. Water's expensive if you buy it at

grain prices. It takes 1¼ tons of 32-percent-moisture grain to equal the feed value in 1 ton of dry grain. So be sure to adjust feeding rations accordingly.

WHEAT VARIETIES

Wheat planting time is almost here and we're getting questions on wheat and barley varieties. For this fall, it looks as follows:

Yorkstar wheat is far and away the best in New York. In Pennsylvania, Pennoll and Redcoat still look good, while Blueboy is a fine-looking newcomer. Short and stiff-strawed, it's gaining popularity in southern Pennsylvania, Maryland and New Jersey. A red wheat, Blueboy doesn't fit in New York's wheat

markets, nor is it winter-hardy enough for most New York grain areas.

For barley in New York, we'll mention only Schuyler, new from Cornell, that's topping all New York tests. It's best in yield, winter-hardiness and standability. It has beards, but they'll come off with good threshing and you'll have more grain in your bin.

Pennrad gets the nod in Pennsylvania, with Wong and Besbar good alternatives. Penrad outyields Wong, stands better and resists the barley scald disease.

CERTIFIED SEED

The more I work with seeds and crop varieties, the more I'm impressed with the value of good seed,

and how this often gets missed. Cost account figures show seed only 3 to 10 percent of the cost of growing a crop. But without good seed, the rest of the investment is lost.

Both New York and Maryland have recently run "drill-box surveys." Their results shock, as they show some farmers sowing purchased seed that was incorrectly labeled as to variety, and others planting home-grown grain, complete with weed seeds. Several had bought their neighbor's seed that had heated just a bit in the bin...not enough to hurt color, but oh what it did to germination!

In both states, blue-tag certified seed came out tops on all counts. It's as true as ever that good seed pays, cheap seed costs!



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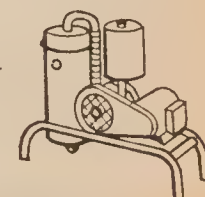
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THEY FOUND AN ANSWER

by Nancy B. Cole

THE people of King Ferry, New York, had a problem. The large acreage of grain fields on these uplands adjacent to Cayuga Lake attracted large numbers of migrating geese, which in turn drew swarms of hunters. More than 75 percent of the land was posted, which concentrated the hunters on the remaining 25 percent or less.

The hordes of hunters trespassed on posted lands, interfered with farm operations, damaged property,

and conflicted with each other. As a result, the geese were so harassed that they did not stop over as long as they had before.

Combined Efforts

Through the combined efforts of a well-known King Ferry resident and the New York State Conservation Department... now the Department of Environmental Conservation... a solution was found that protects the landowners from such

invasions and at the same time allows more public hunting on this prime goose area. This is the King Ferry Goose Shooting Cooperative Area, a management unit consisting of private holdings, constituted by individual agreements with some 30 landowners owning tracts from 10 to more than 1,800 acres. The total acreage was originally 5,200, but has since been increased to about 6,000 acres.

The main reason for the success of the program, and the major benefit to the landowner, was the State's assumption of the responsibility for posting and patrolling the area. State personnel met with each landowner and helped draw up a plan for his property.

Areas were set aside in which the owner did not want any hunting

except by his invitation, and safety zones of a 500-foot radius were posted around buildings. The State became responsible for controlling the numbers and distribution of hunters.

At all phases of planning, the landowner played an important role and the interests of the farm business were put first. After plans had been worked out with every landowner involved, the State attempted to distribute and regulate hunters... both in the interest of landowners, and to provide a more enjoyable hunting opportunity.

Parking

This was accomplished through parking regulations. Areas were designated where a certain number of cars could be parked. Hunters could hunt only on that side of the road on which their car was parked. The parking areas were chosen just before the season, in places that would not interfere with farm machinery access ways and lanes, and parking was allowed only in these areas.

Certain pieces of land were posted as restricted, no hunting allowed, and these were patrolled by the state conservation officers, assisted by biologists and biologist-aides.

Enforced

Posting, unless enforced, is ineffective, yet it is unfair to expect the farmer to hire patrolmen, or to spend his time, especially during the busy harvest season, on regulating hunters who are uninvited, and often in the way. When the State took on the patrol duty, it was possible for many hunters to enjoy their sport on these lands without interfering with farm operations.

Hunting in fields of standing corn is forbidden, except by the owner's express permission. Hunters can be expelled from the area for shooting near or harassing farm workers, or hunting in restricted areas and safety zones.

There are other benefits for the landowners. Under the Fish and Wildlife Management Act of 1957, each cooperator receives free technical assistance and advice. The State supplies any management tools necessary, including the signs and posts, which are removed after each season so as not to interfere with spring planting.

Habitat Good

In this particular area the habitat is exceptionally good and no wildlife food and cover plantings or other habitat improvements were needed. However, they are available to co-operators when necessary.

Each cooperator receives a free subscription to the *New York State Conservationist*, the Department magazine, for as long as the agreement is in effect. If at any time he wishes to withdraw from the co-operative, for any reason, he has only to give the Department 60 days notice.

The problem at King Ferry was not much different from that in many parts of the Northeast, except in intensity. It was a matter of too many hunters on too little land. Since the Cooperative Area has been established, more geese than ever before have been harvested over the area.

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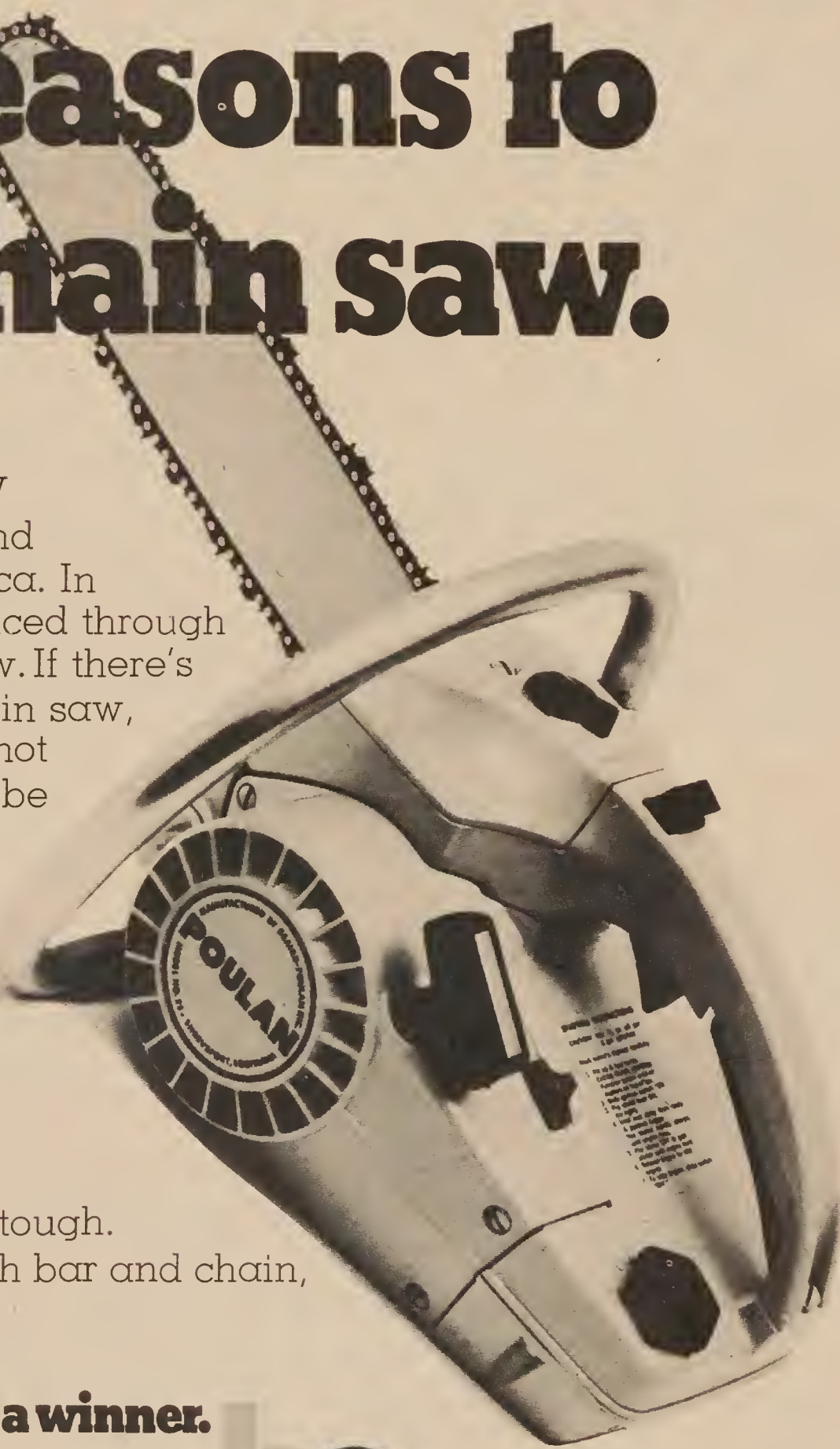
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FORESTRY



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Real Pro — A new heavy-duty "Professional" model that will split logs of any diameter and up to 36 inches long has been announced by the manufacturer of Lickity Log Splitters. Developed for the firewood merchant who processes quantities of hardwood of the tough, knotty varieties, the Professional has a ram force of 55,000 pounds. Standard equipment includes a 12-hp gasoline engine, electric start, battery, over-size wheels and tires, and powered method of raising and lowering splitter.

For complete information, write: Dept. AA, Piqua Engineering, Inc., P. O. Box 605, Piqua, Ohio 45356.

Woodland Growth — Trees still stand a chance! Despite the population growth of the past decade, recent estimates indicate that nearly half... 46 percent... of the total land in New Jersey is forested, and indications are that woodlands are increasing.

"As the use of land changes and fields are abandoned, the forest moves back in," says Benjamin Stout, professor of forestry at Rutgers College of Agriculture. "A similar pattern is occurring in New York and Pennsylvania."

UV Light — Recent tests show that the microbes that contaminate maple sap can now be more fully controlled by agitating the sap under ultraviolet (UV) light.

Folks have known for some time that UV light is a good sanitizer, but it penetrates only about three feet into the sap when placed over the storage tanks. The inexpensive addition of an agitator to the storage tanks eliminates this inadequacy by keeping the sap constantly under motion... so that all the microbes get zapped!

Although the sap is sterile when it comes from the tree, bacteria soon invade it. They multiply rapidly during storage, giving the syrup a poor color, off-flavor, and "ropy" texture.

Sweet Sue—In her day, Sweet Sue was a sugar maple superstar, yielding nine percent sugar... three times that of the average sugar maple... into the buckets of experimenters at the University of New Hampshire

horticultural farm. This year, for the first time, eight of her transplanted seedlings were tested for sugar content and, true to their heritage, ran up to six percent sugar, although they're only four inches in diameter.

Sue, her progeny, and other maples on the farm, are all part of a continuing study to find out what factors determine sugar production... age, weather, environment, health, heredity, or a combination... and the best way to propagate a strain of super-sweet trees for the sugar orchards of the future.

No Gnaws Is Good Gnaws — Mice often do a lot of winter damage to Christmas trees and now is a good time to make plans to control these gnawing critters next winter. Lewis

Bissell, Maine Extension forester, has these suggestions:

1. Bait the area with commercial mouse poison. In some states, only orchardists and Christmas tree growers may use mouse poisons out of doors. In this case, you will have to get permission from your State Department of Fish and Game.

2. Mowing the area is likely to reduce mouse numbers.

3. If you have only a few trees, and the area is mowed, a house cat that likes to hunt can help decimate the mouse population.

4. Build a simple mousetrap as described by the U.S. Forest Service: Punch a nail hole in the center of both ends of an empty condensed milk can, then string the can on a straightened wire coat hanger. Re-

move the bail of a bucket one-third full of water and fasten ends of the wire coat hanger in the bail holes. Run a ramp board from the floor or ground to the edge of the pail. Using a couple of rubber bands, fasten uniformly-distributed pieces of cheese, bacon, etc., to the milk can. Mr. Mouse comes up the ramp and jumps from the edge of the bucket to get the bait on the milk can, which spins and deposits him in the water. Next morning, dump out the drowned mice before swim-time for chipmunks.

In many states, the Fish and Wildlife Service of the Department of the Interior employs a wildlife specialist to advise about animal-control problems. His office is in the Federal Building of your state capital.

Times have changed!

Picking blueberries by hand may be fun for a family excursion, but it hardly adds up to the speed and volume necessary for a profitable operation. This berry-picker is just one of the new and unusual pieces of equipment your Farm Credit Service has financed. Farm Credit is always ready to encourage new, progressive innovations that will help make you a more successful farmer. We're also ready to offer our services, so far as we are able to help solve any of your problems... financial or otherwise. Whether you need credit... or just a helping hand... call on your local Farm Credit man!

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WELL-ORGANIZED

NEAR South Dayton, New York, is the Maple Lane Farm, operated by Everett Mosher and his family. As the farm name suggests, producing maple syrup is one of the enterprises here . . . about 200 gallons in 1971.

The major business, however, is producing milk from 100 cows . . . housed in a free-stall barn (92 stalls) measuring 52×204 feet. It's a free-span building with laminated rafters arching skyward similar to a giant Quonset structure. Everett reports having housed as many as 113 milkers in the barn . . . believes he could go to 120 if the feed bunk were kept full, so that cows would be rotating between stalls and feeding.

Roof Fan

To keep the barn interior well-ventilated, and to prevent the metal roof from "weeping" at times, Everett installed a 48-inch-diameter fan in the roof near its peak. It operates 24 hours a day year-round.

A Bobcat loader . . . powered by gasoline . . . is used to scrape manure. Originally, manure was scraped into a cross-conveyor similar to a regular gutter cleaner, but Everett has found it's faster to pick up the manure with the front-end bucket and drop it directly into the spreader. Wood bark, torn off logs by a debarker at a nearby sawmill, is used for bedding.

What would he do differently if he were building the barn again? Everett comments, "Well, I'd put carborundum chips in the floor of the free-stall barn . . . just as I did in the parlor area. Also, I'd try to figure out how to enclose and insulate the holding area so there wouldn't have to be a wall and doors separating it from the parlor."

The parlor is a double-three herringbone with six milker units. Everett's wife, Betsy, comments, "That's too many for one person to handle, but not enough to keep two people working very hard." Betsy, as well as children Everett, Jr. (15), Sharon (14), and Kenneth (10), are very much a part of the operating team at Maple Lane Farm.

Roughage

Corn silage is the major roughage fed; there are two 20×70 poured-concrete upright silos here. One of these is a sealed storage, equipped with a bottom-unloader.

In common with many other

Northeast FARM EXPERIENCE



dairymen, Everett has found that feeding 4 to 5 pounds of dry hay per cow per day seems to prevent problems sometimes associated with feeding corn silage as the only roughage. As another form of "feeding insurance," he provides access by the herd to two LPS (Liquid Protein Supplement) dispensers . . . reports consumption averaged 1.5 pounds per cow per day during the winter of 1970-71.

Parlor Grain

All grain is fed in the parlor . . . a 16-percent-protein pelleted ration. Everett comments, "With an unpelleted ration, all we could stuff into top producers was 14-16 pounds per cow per day. Pelleting increased that to 20 pounds."

The Moshers start 40 to 50 calves each year, and have converted the stable of the old barn into unusually-serviceable quarters for raising young cattle. Until three months of age, calves are kept in individual stalls on a slat platform.

They then go to free stalls in a pen . . . and finally to free stalls in another barn down the road, or to tie stalls in the same barn where they started as calves. There are also 25 free stalls in the calf-starting barn that are used for dry cows and bred heifers . . . providing enough body-heat in winter to keep calf quarters at a temperature of 40 degrees or above.

The Moshers aren't all business . . . they report a "hobby" . . . keeping 30 Corriedale ewes. This allows for a little wool-gathering, I suppose, but . . . judging from the shipshape way things look at Maple Lane . . . even this enterprise is well-organized! —G.L.C.

BUNKER SILO

Just west of Spencer, New York, is the farm of George Alve. A 20×60 Harvestore is beside the barn, as is a bunker silo measuring 24×96×8 feet.

"We put mostly hay-crop silages in the Harvestore," George comments, "and corn silage in the

bunker." The horizontal structure is made of tongue-and-groove boards held in place by upright poles. The ground was dry and hard at construction time, so George gave up on a posthole digger . . . and dug a trench for setting poles by using a backhoe equipped with a bucket 12 inches wide.

Well-Packed

Silage in the bunker is thoroughly packed during the time it is being filled . . . and on every day for a week to ten days after filling is completed. After that amount of compaction, George reports that little spoilage takes place . . . even though no cover is placed over the top. Silage from the bunker is fed out before hot weather arrives in the spring.

The herd presently numbers 52 cows, but an addition to the barn allows room for 86 free stalls eventually. Well-pleased with the bunker, George comments he'd build another one if he expands the herd to the point that he's silage-short again.

An unusual arrangement here is an outside door on the holding area next to the milking parlor. George has built a sort of "Dutch door" for the barn . . . the top section rolling on a track, the bottom part ruggedly constructed to withstand the battering of confined Holsteins. This enables George to keep the cows cooled by some ventilation, yet corralled by the locked-shut swinging doors. —G.L.C.

PARTNERSHIP

Clarence Bossard and son Jack are in partnership in the operation of a 550-acre dairy farm near Canisteo, New York. The purebred Holstein herd, numbering between 70 and 80 cows, has a herd average of around 15,000 pounds of milk, 500 of fat.

Jack, a graduate of the New York State College of Agriculture at Cornell, does the artificial insemination work here. He has his own liquid-nitrogen tank in which to store frozen semen.

Dairy housing is a combination of free-stall and conventional stabling . . . with milking presently being done in the older part of the barn. A milking parlor (double-3 herringbone) is under construction, in which one man will milk with three milker units. The Bossards are proud of their purebred herd, and like to watch each cow's condition more closely than they believe can be done using free stalls only.

"The herd is classified periodically," Jack comments. "For this procedure . . . and for displaying cattle to prospective buyers . . . we like cows in stanchions. Sure, milk sales have to pay the bills, but selling purebred cattle is frosting on the cake."

Dry hay is a sort of frosting on the roughage ration, too . . . much higher levels of corn-silage feeding have been the rule in recent years.



Jack Bossard looks at one of several herd record books handily located at the dairy barn.

Grain is fed in stanchions . . . all milkers are presently in stanchions at some time during each day . . . and grain will also be fed in the parlor when it is in use.

The Bossards keep detailed herd records, with individual information on registration, breeding, herd health, and other items. This information is kept handy at the barn.

Jack reports having a problem with a viral-diarrhea bug some time ago that developed a strain too hot to handle. As a result, he decided to move baby calves from the main barn to another barn . . . and the program worked in curbing the killer. —G.L.C.

PARLOR CARPET

Up in Red Creek, New York, not far from where the waters of Lake Ontario wash the northern face of Cayuga County, the Craines . . . dad Bernard and son Bill . . . have rolled out the red carpet for their herd of "VIP" Holsteins.

Recent converts to free stalls, the Craines carpeted their new milking parlor with indoor-outdoor carpeting. "It takes about five minutes more per day in cleaning," says Bill, "but we think it's some of the best money we've spent. There's no slipping; the cows stay on their feet. We had tried some carborundum dust in our concrete, but that still gets slick."

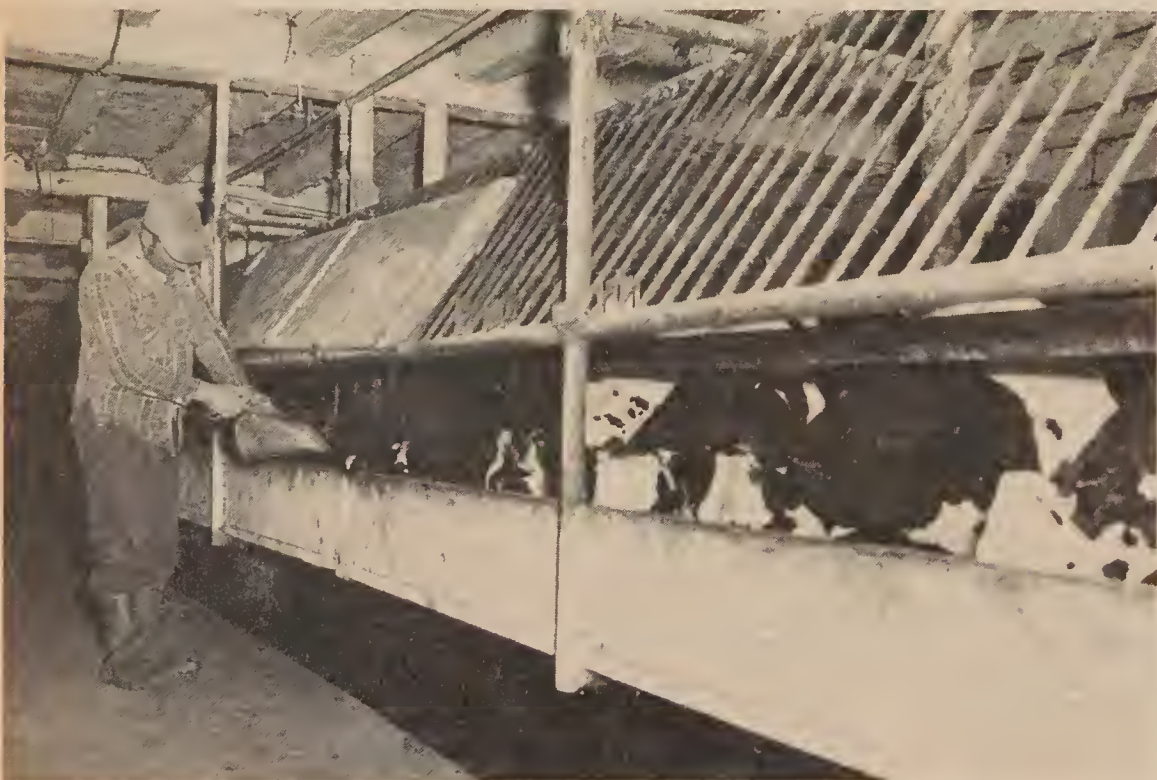
Except for a wooden strip near the door, the carpet is not fastened. "That's so we can drag it out sometimes for cleaning," says Bill. "It does slide a little . . . and there's a little mildew underneath . . . but it doesn't smell, and cleans well."

Expanded

Bill, a 1968 Cornell graduate, returned to join his father after a year and a half as an Extension agent. When they made their decision to expand their 40-cow herd and build a new 107-stall free-stall barn, the Craines also decided not to buy a total turnkey package. Instead, they brought together individually-purchased components . . . using local labor, augmented by some contribution of their own free time. As a result, they have a Surge parlor, Jamesway silo unloaders, and Patz conveyors and feeder.

To save on fill, they put a 1½-foot slope on the barn. In a hundred feet, it amounts to a little under 1 inch per stall. "Ninety percent of the

(Continued on page 13)



Everett Mosher feeds older calves in a pen equipped with free stalls, located in former dairy stable.



**"Agway showed me
how to get 10% more milk and
cut the feed bill by 33%."**

Jack King, Church Hill, Md.

Twenty-nine-year-old Jack King became an Agway customer when Agway Enterprise Salesman Dick Sowieralski suggested a change in his feeding program that would produce more milk rather than excess body fat. Result: the herd average climbed from 12,800 lbs. to better than 14,000, and the cost of feed dropped a third. The good work started by Dick Sowieralski has been continued by Enterprise Salesman Frank O'Day.

The key to all this was a decision to have Agway test the forage produced on the farm and then submit the findings to Agway's computer center for evaluation and a recommendation. The resulting Agway Dairy Feeding Profile report showed Mr. King how to adjust feed intake

to bring the protein and energy into better balance.

"I like working with Agway salesmen," says Mr. King. "These people have had the kind of practical experience that builds your confidence in them. They want to help as well as sell. When they recommend a program, they follow through to make sure it works."

There is an Agway Enterprise Salesman available in your area to work closely with you in making your farming operation more profitable. To get in touch, call your Agway store or representative.

Farm Enterprise Service

AGWAY

In addition to the Agway Dairy Feeding Profile, Mr. King uses the Financial Planning Profile to keep a close check on operations and assist in long-range planning.

Agway Topper, delivered in bulk, balances the ration for the 150-cow King herd. Frank O'Day and Jack King examine a handful of this 33 $\frac{1}{3}$ % protein feed.



Northeast FARM EXPERIENCE



Dan and Alice Murray involve their children in the work... and the returns... from dairying. Son Mike helps them check herd records.

NO PARLOR GRAIN

Dan and Alice Murray... along with their six children, ranging in age from 13 to 7... operate an 80-cow dairy farm south of Seneca Falls, New York. Originally hailing from Cortland County, the Murrays spent six years looking for their present farm.

They started milking in an existing stanchion barn, but now have a new 78x130-foot barn with 87 free stalls. "We had two reasons for the new barn," Dan comments. "We have a big family, and need enough size so they can all be involved in the business while growing up... and we've always dreamed of having a free-stall setup." All six children individually own some cows; four of them get their own milk check.

Two Groups

The herd is divided into three groups according to production... one group producing 45 pounds and up of milk per day, another group below 45 pounds, and a dry cow group. The "high group" receives 15 pounds per cow per day of a 16-percent-protein grain ration; the middle group receives four pounds per cow.

Grain is mixed with haylage stored in a 22x55 concrete-stave silo. Most of the year, corn silage and haylage make up the basic roughage ration... the corn silage stored in a trench measuring 100x35x10 feet. However, seven bales of hay (45 pounds per bale) are also fed to the 80-cow herd each day in a free-choice hayrack.

At one time, the Murrays fed grain in the milking parlor (a double-four herringbone), but have discontinued the practice after deciding to incorporate grain with haylage and corn silage, and feed the combination in the feed bunk. They recommend the change, finding that feeding no grain in the parlor reduced the milking time of 75 cows by 15 minutes twice a day... as well as reducing the amount of manure to be cleaned out of the milking area.

"Besides," Dan comments, "feeding grain in the parlor seemed to push our feed costs out of line... we now feed less per cow, and production dropped a little, but we think we're at a more profitable

grain-feeding level." The last annual DHIC record shows an average of 14,272 pounds of milk and 504 of fat per cow... up a bit from comparable figures when the herd was in the stanchion barn.

What about correlation of grain feeding with the level of milk output for each cow? Except for the split of the herd into three groups, Dan ignores this time-honored concept in favor of a feeding system that offers maximum accomplishment **per worker**. The Murrays use milk-meters on each of the eight milking units every milking, however, because fluctuations of individual production are good signals of potential or actual cow-health problems.

Except for occasional part-time help, the Murray family handles the entire operation... including 120 acres of corn this year, and 100 acres of hay crops (going to silage and hay). In addition, Dan serves as a delegate to both Eastern Milk Producers and Eastern AI, as well as having responsibilities with the Farm Bureau and several other farm organizations. Alice is equally involved as a member of a school board, 4-H leader, and with other groups.

Guess a good characterization of this family would be energy... plus! — G.L.C.

SILLO COMPARISON

Norris Earnshaw operates two dairy farms in northern Pennsylvania... one near Dimock, and the other 20 miles away near Mehoopany. He grows 225 acres of corn on each farm and has a herd of 150 cows at each place.

There are three upright silos (all 24x60's) at the Mehoopany farm... but the other, called Woodbourne Farm, has only one upright. Main silage storages there are two horizontal structures, each measuring 50 feet wide, 100 feet long, and with 10-foot sidewalls.

Likes Trenches

Norris comments, "I'd never build an upright silo if I had my 'druthers'... the trenches are more convenient, more efficient, and cost less to build and operate. I can build two horizontals holding 3,000 tons of silage for what one 24x60 upright would cost."

The trenches have concrete sidewalls and floors... an absolute must as far as Norris is concerned. In fact, he admits that more concrete around the barnyard would be desirable to facilitate movement of silage from storage to feeding area, and to make more complete use of the existing horizontal silos.

That one upright silo at Woodbourne Farm is a 20x60, and it's used to insure that the herd doesn't have to eat freshly-cut corn silage during the time the "big ditches" are being filled. "I've experimented with fresh-cut corn, and found the herd drops off sharply in production," Norris comments.

The upright had already been built long before the trench silos were built, so the Earnshaws use it. However, Norris comments that, if he were starting from scratch, he'd have the two big trenches, plus a small trench silo holding enough to feed the herd for a month... the latter replacing the upright, and serving the same function.

Tractor Packers

Norris uses a small 'dozer to distribute silage in the trench silos, then holds a sort of "horse race" for a half-hour each evening when filling... several wheel tractors are driven around atop silage to pack it. A plastic cover is finally placed on top of the silage, topped off by dozens of old tires to hold the plastic secure. Plans call for experimenting with sowing winter grain on top of the silage... hoping to avoid the expense and inconvenience of placing plastic each year.

A front-end loader mounted on a 60 hp wheel tractor rips silage from the trenches... placing it into a self-unloading wagon for a trip to four feed bunks in the free-stall barn. Silage is not quite the only roughage; two pounds of hay per cow per day is fed in the same feed bunk. Cows are split into four groups according to milk production levels, and all grain is also fed in the feed bunks.

No Shows

At one time, the Earnshaws successfully showed their purebred Holsteins at fairs and breed shows far and wide. Not any more, though... for the shift to free-stall barns, high-silage feeding, and mass-handling of cows does not lend itself to the time requirement or management orientation required for the show circuit. "A dairyman," says Norris, "should be all in or all out of the cattle-show business... not just lukewarm!" — G.L.C.

HIGH-RISE

Some high-rise poultry houses... those with an above-ground manure pit below the birds... have wall-to-wall cages that are serviced from above by using a tram. However, LeRoy and son Milton Kemp of Barton (Tioga County), New York, use full stairstep cages over the pits, with alleyways for servicing between



Neither snow, nor sleet, nor hail shall keep the eggs at the Kemp Poultry Farm from their appointed rendezvous with the egg grader! "Tunnel" houses egg belt going from high-rise house to eggroom.

the four groups of cages (four cage rows per group).

The older house at the Kemp Poultry Farm holds 15,000 birds, and is tied in with a liquid-manure system. The newer house, measuring 42x472 feet, has a capacity of 30,000 birds.

An unusual feature of the newer house is the "tunnel" conveyor that moves eggs 240 feet to the eggroom, where they are graded and packed. The 16 in-house collection belts are operated twice a day, all delivering to the large belt that carries eggs to the eggroom.

About 50 percent of the eggs produced here are sold at the farm... to wholesalers and at retail... the rest go to a wholesaler in New York City. — G.L.C.

JEFFERS FARMS, INC.

Jeffers Farms, Inc. is located near Kingsley (Susquehanna County), Pennsylvania. There have been two major enterprises here... raising heifers to supply the Walker-Gordon Farm in New Jersey with herd replacements, and producing forestry products. The well-known dairy farm in the Garden State is closing down its dairy business, however, so JFI will be turning to some other type of livestock business.

William Hagenbuch heads up the forestry operation at JFI... and is a stockholder in the family corporation. There are 3,600 acres in the farm, 1,500 of which are reforested acres. Between 20,000 and 25,000 Christmas trees are sold each year... only 700 retail at the farm, the rest to 50 wholesale buyers!

Forest Products

Other forest products include pulpwood (going to Celotex at Deposit, New York, and Charmin at Mehoopany, Pennsylvania), saw logs, fenceposts, and poles for log cabins. The latter are red pine... prepared on a portable sawmill for use by 20th-century pioneers.

Bill has a nursery at the farm for starting seedlings; tree seed is purchased at prices ranging from \$7 to \$10 per pound. He also buys some seedlings from nurserymen for planting in April and May.

Spring also is the time for applying an insecticide to the stumps of trees cut the fall before... and for the application of the herbicide, simazine.

June Push

June brings a big push to trim Scotch pine Christmas trees... July and August for trimming fir and spruce. Vegetation is mowed between rows of trees toward the end of summer, and Christmas trees to be harvested later in the fall are also tagged. Tags vary in color according to the size classification of the particular tree.

In October, live trees for sale are dug, and burlapped... and the red-pine makin's for log cabins are harvested. November and December are months for harvesting Christmas trees. Winter months from January through March bring time for timber improvement by selective cutting... a conservation practice for which ACP (now REAP) payments have long been available.

(Continued on next page)

American Agriculturist, September, 1971

There are seven full-time workers in the forestry business at Jeffers Farms, and they keep busy. At work-peak periods (shearing and harvesting Christmas trees), there are as many as 15-20 employees. A host of activities have been omitted from the preceding overview... a variety of pesticide sprays, equipment maintenance, fumigating nursery soil, and many more.

The average non-farmer thinks of trees as scenery, or a place to hunt or picnic. The woodland owner has a similar appreciation of his acres of sylvan symmetry, but also finds a variety of useful products to harvest from the constantly-replenishing supply. — G.L.C.

SQUEEZE GATE

Donald Bennink, dairyman near Clymer, New York, does not feed grain in his milking parlor. Thus, cows don't exactly break down the doors to get in!

To encourage them parlorward, Don has rigged up an ingenious gate that nudges cows forward. It's powered by an electric motor... controlled from the milking pit... and attached to the top of the gate by a drive chain.

The gate is suspended from used tire rims upon which it rolls forward; pipes form the overhead tracks upon which the rims turn. Pipes also form the gate itself... and varying sizes are used so the gate can telescope into a narrowing width.

The holding area is somewhat funnel-shaped, requiring the adaptability mentioned.—G.L.C.

CONVERTED BARN

Kenneth Hutchinson and son Eldon ("Dutch") of Stanley (Ontario County), New York, recently remodeled a poultry house into a dairy barn. It measured 48×128 feet, to which has been added 26×48... and a 20×20 milkroom.

There are 76 free stalls in the remodeled building... a "warm barn" in the parlance of the trade. The herd is divided into three groups according to production... those producing 46 pounds or more per day, the 31-45 pounders, and the 30-pounds-and-under category.

Grain Feeding

Grain is fed in combination with silage... no grain to the low group, 15 pounds per cow per day to the middle, and 25 pounds to the high group. The really top producers even get a little more in the milking parlor, but feeding grain there is not a general practice.

"We don't like to feed in the parlor," Eldon comments. "It creates cow-handling problems... and we think they make better use of grain fed at the bunk. Besides, cows are forever spreading grain around the parlor if they're fed there, and that's bad for the septic system."

A recent Agway Profile sheet shows 32 pounds of corn silage and 38 pounds of haylage being fed per cow per day, combined with the amount of 20-percent-protein grain pellets appropriate to the group of

cows involved. The intent is to keep the mixture in such supply that cows will have it available around the clock. The bunk feeder... a modified gutter cleaner arrangement... operates four times a day.

The Hutchinsons are not convinced that grain feeding in the parlor is really as precise in terms of pounds consumed per cow as some folks claim. They prefer the group-feeding concept of a total mixed ration... on what amounts to a full-feed basis.

If they do as well at producing milk as they do growing corn, they'll post some records. In the DeKalb corn-growing contest of 1970, they won a plaque noting an official corn silage yield of 28 tons per acre! — G.L.C.

HEDGING APPLES

The owners of Crist Bros. Orchards at Walden, New York have for several years been using a hedger for trimming apple trees. Edward Crist comments that for the first couple of years he thought the new device might be a cure-all, and tried to do too much with it.

However, he now believes that the hedger... a sickle bar that can operate horizontally or vertically (or angles in between) at considerable heights... is really a pruning aid. "It's very important to follow up with selective hand-pruning," he comments.

Heavy pruning with the hedger stimulates too much vigor and consequent vegetative growth... especially true if the trees have big,

well-developed root systems. The amount of cut is geared to the age of trees in the block, as well as the variety and level of vigor.

In fact, the pruning job at the Crist Orchards is divided up on the basis of tree age. One person takes care of pruning younger trees, another the next older age group, and so on. Specialization is a factor at the end of the pruning shears, just as with so many other kinds of work.

Ed comments that the general "style" of cut with the hedger is to try for a Christmas tree shape... tapered on sides and top. But he agrees with the barber... the clippers are fine, but a good haircut also requires using the scissors very selectively!—G.L.C.

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MECHANICAL HARVESTING

by Amos Kirby
New Jersey Editor

MECHANICAL harvesting of vegetables has become a "must" in New Jersey. This year finds the asparagus and tomato harvesters coming to the front. With 30 asparagus... and 50 tomato... harvesters in the field, these two machines have joined the grain combines, potato diggers, and bean pickers in solving the harvesting problems.

A check of the asparagus harvester on many farms shows that these machines did an excellent job. While few growers made any money on asparagus in 1971, due to light yields and an unrealistically low price, the harvesters demonstrated that they are here to stay.

Even growers using the hand-harvesting system and selling on the fresh market did not fare much better financially than those with the harvesters who sold to processors.

One grower with 130 acres and two harvesters had a weekly labor bill of \$140. Last year, with the same acreage and 40 workers, his weekly labor bill was about \$2,800, plus the cost of housing and other fringe benefits.

Meager Profit

In contrast, another grower with slightly under 50 acres sold about \$14,000 worth of asparagus. Having the crop harvested by hand cost him \$9,000 for labor. This, plus all other costs, left him a profit of only \$159.

New Jersey tomato growers... with new varieties, and direct seeding instead of southern plants... have about solved their last remaining problem and are swinging to harvesters. An unofficial report indicates that 44 harvesters have been sold, with probably another half-dozen latecomers who finally turned to mechanical harvesting.

Snap bean harvesters have about eliminated hand harvesting of this crop. White potato harvesters and lima bean harvesters are old stuff.

For harvesting blueberries, the machine is fast taking over the task of picking this fruit from more than 7,000 acres in New Jersey.

Each asparagus harvester replaces 20 workers. A bean harvester does the work of 75-100 pickers, and a blueberry picker does the work of at least 200 men and women.

There are a number of reasons why growers have invested large sums in harvesting equipment. It is not so much the cost of hand picking as it is the labor laws and strict regulations imposed by various government agencies.

IRRIGATION WATER

How much water have you used for irrigating crops this year? That is a question the Water Resources Division of the New Jersey Environmental Protection Bureau is going to be asking one of these days. In the Garden State, water-use permits are

required for any water originating from underground sources. These permits must be renewed every five years.

Each year, the Water Resources Division requires reports on the amount of water used. One may not be able to report water usage down to the gallon, but one must have fairly accurate estimates.

The Extension Service suggests that irrigators maintain a day-by-day record of the amount of water that is pumped.

SALT WATER TEST

Free salt water tests may be secured through the county agents. Growers near the Delaware River who pump water from streams flowing into the river may run into an excessive amount of salt.

Tomatoes, peppers, squash, sweet corn and melons can take salt concentrations up to 4,500 parts per million. Some crops may take up to 5,000 ppm. Some samples of water have tested up to 10,000 ppm... or one-third the strength of sea water, which may run to 35,000 ppm.

CORN BLIGHT

Drought has caused more damage to corn in most areas of New Jersey than any potential from the southern corn leaf blight.

While blight has been found in a few fields from volunteer plants, the weather through July was unfavorable for the blight to develop to any extent.

Drought damage has already reduced yields no matter how much rain might come.

FOOD EDITOR TOUR

Seven New Jersey farm organizations have sponsored another tour for food editors through the fruit, vegetable and dairy areas.

The food editors, chain store representatives and others... numbering nearly 100... were provided with buses from Philadelphia and New York for a tour through important agricultural areas.

The sponsoring organizations were: New Jersey Apple Industry Council, New Jersey Blueberry Industry, Growers Cranberry Company, Ocean Spray Cranberries, Garden State Milk Council, New Jersey Peach Promotion Council, and New Jersey Small Fruits Industry Council.

GROW YOUR OWN

New Jersey vegetable growers can save on costs by growing their own plants instead of buying them from the South. The success already achieved by growers with plastic greenhouses in growing tomatoes and other crops opens up the possibility of importing fewer plants from Florida and Georgia.

Plastic houses are not expensive. The labor of maintaining the plant beds can be done by regular farm help and the plants will be ready to put in the ground when convenient, instead of waiting until they arrive by truck.

New Jersey imports upwards of 100 million tomato plants at an average cost of \$7.50 per thousand. In addition, the purchase of pepper and cabbage plants runs into the tens of millions.

NEW PACKAGE

A new package for transporting tomatoes to the processing plant will be used this year by the Campbell Soup Company. These are welded iron and wood boxes that will each hold about one ton of tomatoes.

When the loaded trucks arrive at the processing plant, the end partitions of the boxes are removed and the tomatoes are floated from the truck to a flume along which they move directly to the plant.

Two lines of boxes, plus a second layer, will enable a grower to haul 20 tons per truck. A trial lot in 1970 proved so successful that the company had 300 of these portable boxes built. They replace the baskets and pallets previously used.

PROMOTING BLUEBERRIES

The North America Blueberry Council, a New Jersey-based co-operative agency, has found that promotion and personal contacts have opened up new markets for both fresh and canned berries.

The Blue-Grass Industries of Philadelphia featured blueberries at its in-plant cafeterias. In cooperation with the food editor of the Philadelphia Inquirer, a "Blueberry Day" was featured in the foods section of that publication. In addition, the entire Horn & Hardart chain of restaurants featured blueberries for the month when the crop was at its peak.

Three big chains... Pathmark, Food Fair and Pantry Pride... featured blueberry pie and fresh blueberries in all of their stores.

RARITAN POTATO

Growers appear to be highly pleased with the new Raritan potato. Developed at the New Jersey Experiment Station, it promises to replace part of the acreage devoted to the standard commercial varieties.

The Raritan has a quality that appeals to consumers and meets the grades demanded by the chipping trade.

BARLEY OR WHEAT

New Jersey dairymen with supplies of barley and wheat are finding them excellent items in the grain ration. Barley contains 10 percent digestible protein, wheat 11 percent (average of all types), while corn-and-cob contains only 5.4 percent.

With energy as the prime consideration, corn-cob meal rates the low position of 72.1 therms of energy, compared with wheat and barley at 80.1 therms per hundred-weight of feed.

Rations formulated with barley and wheat as the prime energy source usually limit the percentage of small grain... generally not more than one-third to one-half of the grain ration by weight.

Higher levels of barley or wheat may be used if materials such as beet pulp or citrus pulp are included.

NO SWIMMING

During hot weather, in places where there is limited or no shade for cattle, the animals sometimes wade in stagnant water pools.

This can be dangerous. Organisms capable of killing may lurk in those pools!

FREEZE-BRANDING

Freeze-branding of cattle has proven successful on the Bishop Farms, Columbus, New Jersey. The technique is simple. A super-cold branding iron is applied to the hide for a short period. The intense cold kills the pigment-producing cells. A scar will form and, if correctly done, white hair will replace the colored hair and produce a readable brand.

When applied to white animals for a longer period of time, freeze-branding kills the hair follicles; hair will not grow back on the brand site. This is called a bare (or "bald") brand.

The Song of the Lazy Farmer

Most people who write poetry or songs of romance seem to be convinced beyond the slightest doubt that just kids know what love's



about. They talk of girls with golden hair and pink cheeks yet unlined by care; each maiden's courted by a beau who seems to look like Romeo; apparently all those kids do is hand-in-hand to wander through a field of daffodils and croon about a golden moon in June. I seem to get the feeling that, if you are old and gray and fat, then it's assumed a heart is not one of the things that you've still got.

Well, let me tell the younger set, there's romance in this old boy yet. It's lots more solid too, by gee, than any teen-age love could be; it isn't just a fleeting thing appearing for a while in spring, nor does it show up only when the summer moon is full again. There may not be stars in my eyes, but ev'ry day I realize how much Mirandy means to me, especially at those times when she is cooking something for her mate — no orange blossoms smell that great, such sweet perfume could only be an angel's magic work, by gee.

NEF Experience

(Continued from page 8)

cows will lay with their feet pointing downhill," says Bill. "Maybe it'll help reduce udder injuries."

Changes

Like any dairyman would, if given a second chance, the Craines might make some changes if they were just starting their construction. "We put in 7-foot stalls," says Bill. "The cows are comfortable, but maybe we could cut it to 6½-feet. They'd be easier to keep clean. I'd like to see how a carpeted concrete stall with about a 4-inch slope toward the alley would work.

"And with all the trouble you can run into in getting manure out of the barn some days and spreading it in the field, maybe another time we'd think more of liquid manure or some other storage system. We put in a double-four herringbone, with space for additional stalls. I doubt if we'd do that again. For more cows, I'd just milk longer.

I'm convinced a parlor should be designed for one man," he adds. "With a lot more cows, I'd have a second man come in after the first two hours or so to finish milking.

"And I think you have to screen cows better when you switch them from stanchions to free stalls. We gambled on some older cows, thinking we could get another lactation out of them . . . but we lost too many of them." — William Quinn

HOLSTEIN BEEF

William Rockefeller farms near Phelps, New York . . . operating 1,100 acres (he owns 400 of them). Among other crops, he's growing 700 acres of corn this year, and expects to market it all through beef animals . . . an enterprise he's been involved in for five years.

Most of them will be Holstein steers, but Bill does feed out some traditional breeds of beef cattle for certain customers who prefer them. The dairy-type steers go to one regular customer. There are generally 550 steers on feed at four locations at Rockefeller Farms.

Calves

Dairy steers come to Bill from the Supreme Cattle Company at 14 to 16 weeks of age. Although calf-hood diseases are normally past by that age, Bill reports that heads-up attention is still required for a time to avoid a flareup of health problems. Part of this may be due to having a mixture of ages in one feedlot, as occurred last spring when three successive batches of 100 calves each were put in a feedlot each month for three months. In the future, Bill plans on getting 600-pound feeders for the feedlot.

At one feedlot, Bill normally uses haylage and high-moisture shelled corn (plus protein supplement) as a finishing ration. At another lot . . . the biggest one . . . he feeds high-moisture ear corn without additional roughage. Bill reports that the incidence of liver abscesses varies widely between the two types of ration . . . much less a problem where haylage is being fed. He feeds Aureomycin to help prevent this problem.

Why the dairy beef? Bill reports

that he can find a steady supply of nearby calves . . . that they gain faster than beef breeds . . . and that they gain somewhat more efficiently than the regular "dogies." "Furthermore," he comments, "dairy steers are finally commanding a price more competitive with beef breeds than was once the case." — G.L.C.

UNDERGROUND "SILO"

The Southern Tier Expressway is being built in pieces across southern New York State. It's carving its way across dozens of farms . . . including that of Raymond (Jim) Strahan between Friendship and Belvidere in Allegany County.

Although there are 950 acres in

the farm, Jim is losing some of his best cropland to the bulldozers and earthmovers. He's milking 70 cows, plans on 100 in his recently-built barn having 92 free stalls.

The Strahans use a liquid manure arrangement involving a round holding tank 12 feet deep and 30 feet in diameter. Like the two new 20×60 silos, the tank is also made of poured concrete.

Manure is scraped directly into the tank through openings in the floor of the free-stall area. The cover of the tank, eight inches thick of reinforced concrete, is supported by a concrete pillar in the center.

"We clean from it about every two weeks," Jim reports. "We haul for a day . . . but have never emptied the 62,000 gallons that it holds."

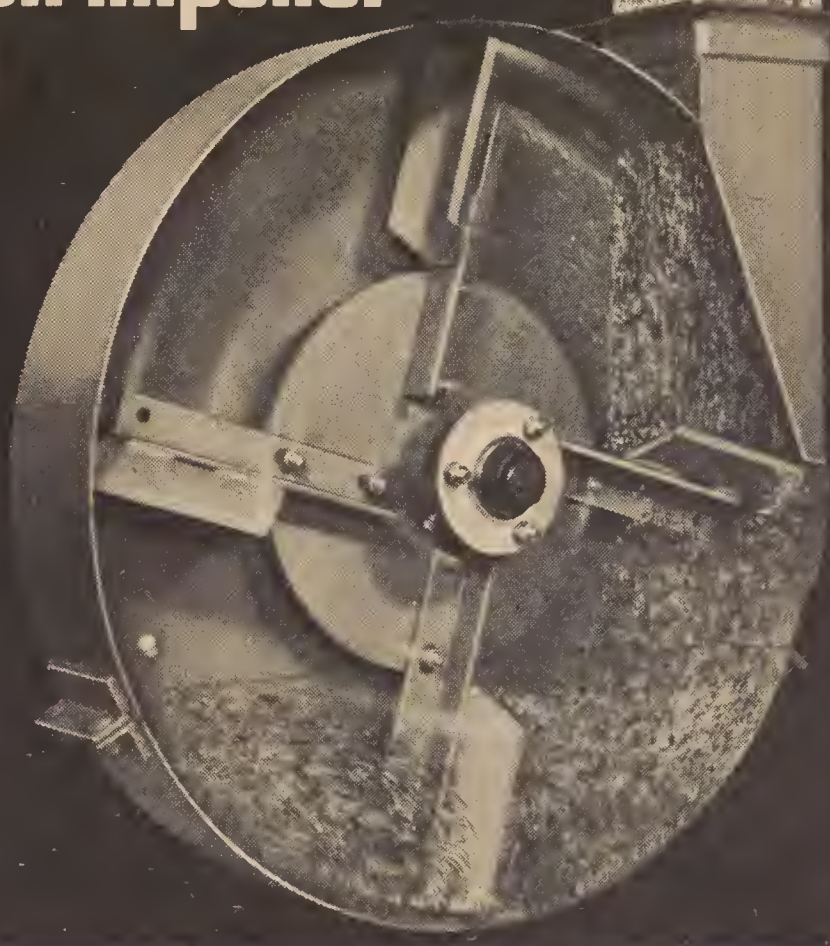
He has heard from other farmers the advice to never scrape frozen manure into a holding tank . . . and has scrupulously followed that advice. There were two short periods during the 1970-71 winter when no manure scraping was done because of cold weather.

Corn silage and haylage are the major roughages here, but a minimum amount of dry hay is fed. As with many dairymen, Jim has found that silages are more efficient to handle than hay . . . but that a little hay seems to prevent a number of otherwise-troublesome problems of herd health, especially nutritional ones. — G.L.C.



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LIVESTOCK



Recycling Waste — A partial solution to the ecological problem of animal waste may lie in re-feeding the wastes to livestock to utilize the nutrient elements still present.

Cattle feces (with no bedding materials included) have been found by Ohio animal nutritionists to be both palatable and digestible when fed to sheep. Cattle had been fed supplemented rations containing two forms of dry corn grain... whole

shelled or crimped . . . with and without corn silage.

Major goal of the Ohio study was to determine if livestock feces are palatable and digestible; whether or not processing manure and re-feeding it will prove feasible and practical must still be determined.

Swine Feeder — An automated swine feeding system which has improved the rate and efficiency of gain in growing and finishing pigs has been reported by Ohio research scientist Dr. Howard S. Teague. The system . . . suitable to almost any type of pen arrangement . . . delivers feed in paste form to feeders as pigs eat. The mixture contains enough water to be pumped but not enough to

meet the pigs' water requirements.

In trials over an eight-year period, pigs fed paste feed consumed more feed and gained faster and more efficiently than pigs fed the same ration in dry form. Spoilage has not been a problem, and wastage has been virtually eliminated in the new system.

Crossbred Rams — Mating two purebred animals of different breeds to produce market animals and commercial breeding females is common practice; now the potential value of the crossbred male as a breeding animal has been recognized.

In a two-year study by Dr. Charles Parker, animal scientist at the Ohio Agricultural Research and Develop-

ment Center, first-cross rams mated to first-cross ewes sired an average of 17 more lambs per 100 ewes than the purebred rams. The lambing rate was also higher for older ewes when mated with crossbred rams.

Parker emphasizes that the crossbred animals in the study were all first-generation crossbreds, so the study in no way predicts doom for purebred flocks. The purebred animals are needed to produce first-cross rams and ewes for commercial breeding flocks.

Expansion — The Brown Swiss Cattle Breeders' Association has broken with tradition and branched into the beef business by forming Brown Swiss Beef International, Inc., to record and register the offspring of Brown Swiss bulls used in beef cattle crossbreeding and upgrading programs.

The decision to set up separate beef herd books stemmed from the excellent results obtained through crossing Brown Swiss bulls on beef cows in all parts of the country. The Association will, of course, continue activities for the improvement and promotion of registered Brown Swiss dairy cattle.

To get full information about the formation of the new beef registry, write: Secretary Marvin L. Kruse, Brown Swiss Association, Beloit, Wisconsin 53511.

Whole Corn — Whether dry shelled corn is fed whole to beef steers . . . or whether it should be ground, cracked or flaked for feeding . . . depends on how much roughage is included in the finishing ration.

That's the word from the Ohio Agricultural Research and Development Center, where experiments with 120 steers over a period of six months showed that growing-finishing cattle on high-concentrate rations performed better on whole shelled corn, rather than crimped.

With dry, whole shelled corn, greatest gains and feed conversions were achieved when no more than 10 pounds of corn silage per steer was fed daily. With higher silage rations, however, best gains come from crimped corn.

Big Breed — Several head of bulls and cows of a new beef breed have been imported from Italy into Canada for testing at the Lacombe, Alberta station. The new cattle . . . called Chianini (pronounced Key-ah-nee-nuh) . . . are the biggest to enter cross-breeding tests to date. Mature bulls will weigh 3,200 to 3,800 pounds. Cows will weigh 2,000 to 2,200 pounds.

Ruff-Tabs — Reports from two more leading universities verify that feed conversion efficiency increases when Ruff-Tabs roughage replacer is added to all-concentrate beef finishing rations.

At North Carolina State University, steers fed Ruff-Tabs outgained their all-concentrate-fed counterparts by 18 pounds . . . average daily gain was 2.27 pounds to 2.17 pounds in favor of steers fed Ruff-Tabs. At the University of California, where five test groups participated, cattle fed

(Continued on next page)

5 days of colostrum is enough

Calves get all the colostrum needed in the first three to five days. After that, you can sell all the milk. With the right milk replacer, your calves will thrive. There are three Agway milk replacers to choose from:

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The earlier a calf gets on solid feed, such as AGWAY CALF GROWER, the more rapidly it develops. Nutritionally balanced and highly palatable.

AGWAY

Ruff-Tabs exceeded all other groups in average daily gain.

Sooeey Slats — A new flooring system developed by Alcoa for swine farmers is "Sooeey Slats," consisting of smooth-ribbed aluminum slats held in place by anchor straps and locking tabs.

A company spokesman says that Sooeey Slats can readily handle the weight and action of full-grown hogs. Rounded top corners prevent injury to hogs' feet, and hosing the floor after each production cycle is the only maintenance required.

Full information about Sooeey Slats is available by writing: Dept. AA, Aluminum Company of America, 679 Alcoa Building, Pittsburgh, Pennsylvania 15219.

Handbooks — Farmers, ranchers, farm consultants or hobbyists can get current information about shelters and equipment for the major agricultural animals from: Midwest Plan Service, Agricultural Engineering, Iowa State University, Ames, Iowa 50010.

Be sure to include check or money order when you write to ask for:

MWPS-15 — Horse Housing Handbook; \$2

MWPS-8 — Swine Housing Handbook; \$1

MWPS-7 — Dairy Housing Handbook; \$2

MWPS-6 — Beef Housing Handbook; \$1

Wheat Processing — Recent tests to evaluate various processing methods for wheat to be fed to finishing steers substantiated previous trials. Results showed that 1) to increase feed efficiency, wheat has to be processed in some manner... dry-rolled, high-moisture-rolled, flaked, or extruded, and 2) the easiest method... dry rolling... is just as good as the more elaborate processes.

Tests were conducted at the Kansas Agricultural Experiment Station because of the high demand for feed grains combined with low wheat prices... a combination resulting in rapid growth of the use of wheat as a livestock feed.

Sire Analysis — Animal scientists may soon be able to predict how good a bull will be as a herd sire without waiting to see how good his first offspring are... so indicates research conducted at Kansas State University by C. C. Melton.

The procedure involves taking a muscle sample, or "plug," from the loin muscle of a live animal and studying its physical and chemical characteristics to determine how good the carcasses from this bull's calves will be in terms of cutability, consumer acceptability, and quality grade.

Melton points out that the animal suffers no harmful effects from the sampling.

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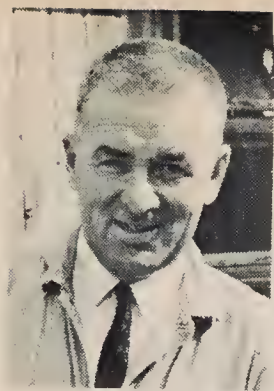
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Doc Mettler Comments on:

HEIFER LET-DOWN

IF YOU are in a back pasture looking for a strayed heifer on an early September afternoon, the temperature and humidity can make you think summer will last forever. But if you stand still to rest and listen, you will hear all sorts of insects singing their final songs that make you think of fall.

A light breeze may suddenly spring up in the north, hitting your face in a way to make you realize fall is really on its way . . . then you'll probably begin to wonder why you didn't bring the heifers closer to the barn where they could be properly fed and watched prior to calving.

Don't be too hard on yourself. Everyone has to have one calve "over in back" once in a while, just to have an excuse to wander around distant parts of the farm during this quiet time of the year. Luckily, most heifers do calve normally. And you've had a chance to find a few wild hazelnuts or mushrooms and realize that this sin of poor management isn't all loss!

Holdup

Generally, the worst thing that happens to heifers that calve normally but go off and hide is that they "hold up their milk" for the calf when you try to milk them. Once in a while, even a heifer that calves where she is supposed to and never had the calf nurse will hold up her milk, too.

If you are aware of what is going on and start to do something right away, most of these heifers can be helped. If you don't take care of the heifer correctly she might come around to letting down in a few days, or she might dry herself up. At the present cost to raise or buy a fresh heifer, you can't afford to take this gamble.

If there is doubt in your mind that you are getting all the milk out of a heifer by the third milking, be ready to do something about it by the fourth.

To go back a little . . . under ideal conditions, a heifer should have her calf removed before it ever nurses. Other than a stream or two by hand to be sure there is no mastitis and that all four teats and quarters are normal, the first milking should be done by machine. (Don't skip that hand check, however. I've seen heifers milk out of only three teats for weeks before anyone discovered it!)

Patience

Be gentle but firm in the first milking. Use a rope or halter to tie if need be, but above all use lots of patience. In older cows, I don't like to see all the milk removed the first few milkings, but in a heifer, if she'll let it all down, take it out and get the pressure off.

Most heifers will drop all their milk in two minutes. Start them off right . . . **time them with a watch.**

No heifer should have the machine left on more than three minutes, and less is better. Most slow-milking cows are the result of slow milking-men who started them off as heifers.

To get back to the rare heifer that doesn't let down on the fourth milking, spend some time massaging her udder with a towel and warm water. Stay with her while the machine is on and rub her if she likes it, or

if she is scared, get completely away.

If she doesn't let down then, give her let-down hormone (Oxytocin) that you can get from your veterinarian. He will tell you the dosage and furnish you with the equipment to give it, or perhaps you'd rather have him give it the first time and show you how.

Within five minutes after a small intramuscular injection, let-down should occur, the machine can be put back on, and the heifer will milk out dry. Next milking, most heifers will milk out completely. If not, a small dose of hormone should be used again.

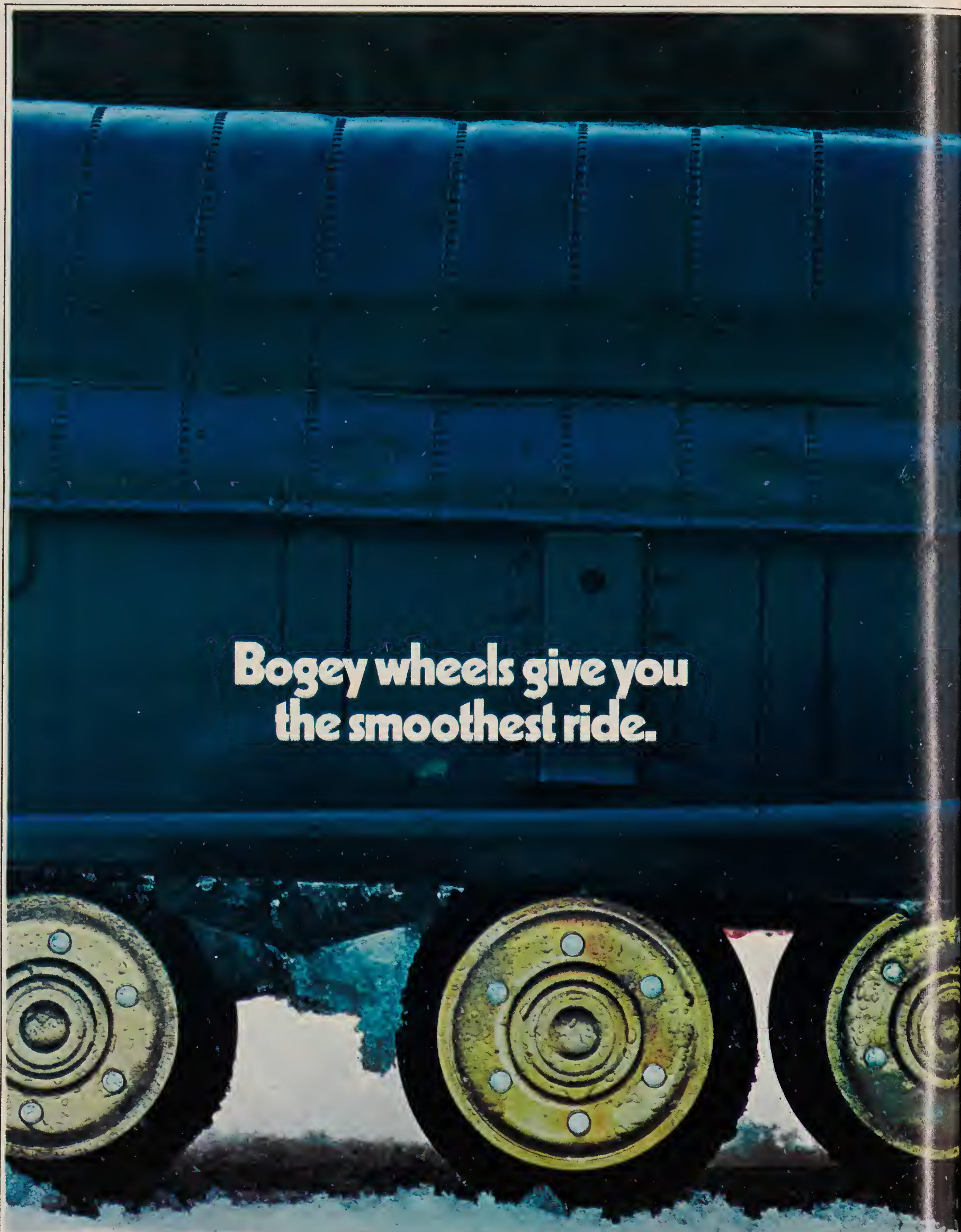
If by the next milking you still have a problem, you'd better have your veterinarian check the heifer over completely. He may find she

has a calcium deficiency, retained placenta, infected uterus, or even mastitis. Oxytocin can't work unless there is enough calcium in the system. This is rare in heifers, but it does occur.

The lessening of cake in the udder is often directly proportional to the lessening in size of the cow's uterus. If the uterus fails to contract after calving, the udder may stay hard and full, too.

I've seen heifers that had to have hormone for a month that eventually milked normally. In most cases, however, if normal let-down doesn't occur after a few days of hormone treatment, the heifer ends up in the slaughterhouse.

Never use hormone until you've tried every other treatment first.



**Bogey wheels give you
the smoothest ride.**

Doing so may cause more trouble than it averts. The important thing is to start the hormone when it is needed, soon enough to get the udder completely emptied out and relieve the heifer of pain.

Remember that if you scare the heifer bad enough while you are giving the hormone, you've lost more than you've gained. A little patience, a sharp needle, and skill can do a lot to prevent this. Many veterinarians prefer to put the tail over the back and give the hormone in the tail vein. In this way the heifer doesn't become scared and intravenously the hormone works almost immediately.

This brings up another cause of poor let-down . . . fright. Rarely, but it does happen, a heifer is just

so scared she can't let down. If this seems to be the cause, your veterinarian will use tranquilizers.

I recently saw a heifer I'm sure was capable of 60 pounds a day nearly go dry because she was given hormone for two weeks straight and no one ever tried to find the cause of her problem. After five days of tranquilizer she began to milk better, but never got over 35 pounds a day. I'm sure if she had been given tranquilizer early, she would have milked twice that much. Bringing heifers into the barn and parlor before they freshen can help prevent this sort of thing.

Regardless of treatment of poor let-down, prevention is still the most important. Despite my opening remarks, the best prevention is to have

heifers up near the barn to be properly prepared weeks before calving. A little time spent in getting your heifers used to being handled while they are still calves is a good investment, too.

Next Sunday afternoon, even if you don't have a heifer to look for, take a walk "over in back" and look around. You'll find you can enjoy the peace and wildness of the back pasture more when the heifers are all home where they belong.

BLANK ACCOUNT

I quit "keeping up with the Joneses." The battle of thrift has been won. My bank account's beautifully balanced . . .

But the Joneses have all the fun!

— Maurine Martin

Bull.



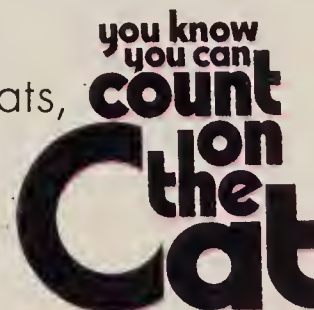
Arctic engineers were able to utilize the aircraft-type riveted aluminum chassis that absorbs shocks and won't rust.

The torsion spring/slide rail suspension is the key to Arctic's

totally integrated system of snowmobile components. You might see other manufacturers copying one part or another. But only Arctic gives you the total system.

Bogey wheels? Bull.

Try all the fun products from Arctic Enterprises, Inc.; Arctic Cat bikes, Silverline boats, ArcticWear clothing, Arctic lawn & garden products.



Dates to Remember

Aug. 31-Sept. 9 - New York State Fair, Syracuse, N.Y.

Sept. 5-11 - Vermont State Fair, Rutland, Vt.

Sept. 7-11 - Annual Meeting, National Association of County Agricultural Agents, Columbus, Ohio.

Sept. 10-12 - Yorktown Grange Fair, Yorktown Heights, N.Y.

Sept. 10-12 - NYS Poultry Industry Coordinated Effort (SPICE) Annual Convention, Edgewood Resort Hotel, Alexandria Bay, N.Y.

Sept. 10-19 - New Jersey State Fair, Trenton, N.J.

Sept. 16 - Annual Cornell Corn Field Day, Aurora, N.Y.

Sept. 17 - Feeder Pig Sale, Caledonia, N.Y.

Sept. 17-18 - New Hampshire Forest Field Day, Moultonboro, N.H.

Sept. 17-26 - Eastern States Exposition, West Springfield, Mass.

Sept. 20-24 - 8th Annual Pennsylvania All-American Dairy Show, Harrisburg, Pa.

Sept. 21-23 - Annual Conference, NYS Association of Milk and Food Sanitarians, Rochester, N.Y.

Sept. 22-24 - Northeastern Poultry Producers Council (NEPPCO) 40th Anniversary Conference, Concord Hotel, Lake Kiamesha, N.Y.

Sept. 23-24 - Eastern National Holstein Show, Harrisburg, Pa.

Sept. 25-27 - Flower Industry Convention, Syracuse, N.Y.

Sept. 26-28 - Annual Meeting, NYS Soil Conservation Districts Association, Edgewood Hotel, Alexandria Bay, N.Y.

Oct. 1 - FFA Tour Day at Eastern Artificial Insemination Cooperative, Ithaca, N.Y.

Oct. 3-9 - National 4-H Week.

Oct. 7 - Conservation Leaders Forum, Cornell University, Ithaca, N.Y.

Oct. 9 - NYS Shorthorn Association Sale, Fairgrounds, Canandaigua, N.Y.

Oct. 12-13 - NYS 4-H Agents Association Annual Meeting, Cornell University, Ithaca, N.Y.

Oct. 12-14 - Forest Recreation Symposium, State University College of Forestry, Syracuse, N.Y.

Oct. 13-14 - Dairylea Cooperative Annual Meeting, Concord Hotel, Kiamesha Lake, N.Y.

Oct. 13-15 - Cooperative Extension Conference, Ithaca, N.Y.

Oct. 15 - Feeder Pig Sale, Caledonia

Oct. 16 - Feeder Cattle Sale, Pike, N.Y.

Oct. 19-20 - 6th Annual National Meeting on Poultry Condemnations, Convention Hall, Ocean City, Md.

Oct. 21-22 - Agway Stockholders Annual Meeting, Syracuse, N.Y.

Oct. 22 - Feeder Cattle Sale, Dryden, N.Y.

The wonderful world of

PICK-YOUR-OWN!

by Charles L. Stratton

CITY folks like to get out into fresh country air and visit a farm. For some, it brings back fond memories of grandfather's farm; others have never before tasted tree-ripened fruit. Larchmont Farms in Masonville, New Jersey, wraps it all up in a carnival-like atmosphere when it throws its orchards open to pick-your-own apple and peach customers.

It all started on July 3, 1969, when a violent hailstorm laid waste to Larchmont Farms, one of the Garden State's larger fruit growing operations . . . operated by C. William Haines, Jr. and his father. Half the fruit was blown or knocked off the trees, and the rest was badly pitted. The crop wouldn't pay for the cost of picking.

Normally, apples here are picked from July 5 until mid-November; peaches from July 20 until Labor Day. Desperate, Haines phoned Gerald Blood, a Wichita, Kansas fruit grower with 700 acres sold by pick-your-own methods, and got some valuable information, then went ahead with plans to salvage what he could of his fruit crop.

Ad Program

Larchmont Farms is located only 20 miles from 15 million people; Haines hired an advertising agency and placed pick-your-own ads in the Philadelphia papers. A TV station provided valuable coverage of the hail damage . . . later returned to cover the pick-your-own program.

Advertising brought the customers; hail-damaged fruit brought one dollar a basket. Pick-your-own has now turned into an important part of the Farms' harvest program, accounting for 20 percent of the crop in 1970.

Larchmont Farms now allows picking on weekends, and later may add a couple of weekdays. Six tractor-drawn trailers, topped with red and white striped canopies, take pickers on the mile circuit through the orchard. Employees wear red and white striped shirts for identification and to boost the carnival atmosphere.

As Haines says, "Unusual things become important in a pick-your-own operation. Toilet facilities are needed, especially when you get 2000 people on a weekend. A nurse should be on call for minor cuts and scratches. You need people to direct traffic, and road patrols to keep people from stopping and stealing fruit. We also have a water truck to sprin-

kle the lanes several times daily to keep the dust down."

Customers are required to use standard half-bushel baskets for picking. Haines supplies the 26-cent baskets for a quarter. Though some customers bring paper bags for fruit, they are told to pick into baskets as bags may tip over in the wagons. Baskets also make for accurate measure.

Some people apparently come just for the day's outing, as wagons may return from the orchards with thirty people and only a dozen baskets of fruit. One man walks his dog. Every day several women lock keys in their cars.

Customers don't even mind picking in the rain. Biggest problem is getting tractor drivers to work in the rain!

Customers are allowed to fill baskets with apples or peaches, or a mixture of both, for the same price. Ladders are available, but their use is not encouraged. Limb damage has turned out to be less than with regular employees.

Some women select fruit by pointing it out on trees and having their husbands climb up to get it. Some even dump picked fruit and replace it with better fruit. Sections are blocked off to keep pickers out of unripe fruit.

Friendly employees who like to talk and can get along with people are hired especially for the weekends. A list of fruit varieties is posted and customers pay in the parking lot as they leave the wagons.

Checkout

Some overfill baskets and carry the extras in another basket so "they won't fall off the top." To discourage this practice, Larchmont Farms installed scales in the checkout area and charges \$2 for a half-bushel basket not over 23 pounds. Anything past 23 pounds is charged at the rate of ten cents a pound. Thus, a basket heaped up a bit, and having 24 pounds, costs \$2.40, or forty cents for the additional pound!

As people like to belong to things, Larchmont Farms established a \$2 Pick-Your-Own Membership Card in 1970 that allows one family to pick for one season. A "not liable for injuries" clause is on the reverse side, similar to baseball tickets. This has reduced liability premiums substantially and cut down on casualties; customers are afraid they will lose membership if they report minor cuts and scratches.

People behave better, too. Those that don't are warned that they'll lose their membership. These cards have become an important part of the program. Many families return several times during the season.

A small barnyard zoo . . . four

sheep and other small farm animals . . . has been added for the youngsters.

The first season, customers picked clean 25 acres of Jersey Queen peaches and .40 acres of Delicious apples. Normal weekends will average 25 tons of fruit.

Supervision is very important. Otherwise, customers will pick unripe fruit. Although they will pay for it, they will not be satisfied and won't return. The secret of getting a customer to return is to make sure he gets a taste of tree-ripened fruit.

Young Haines made an excellent 22-minute color film of Larchmont Farms' orchard and pick-your-own program which he shows to service groups.

He finds frost is a major problem in southern New Jersey, which has a peach bloom date about April 15-20. Tires have been burned to create bloom-protecting smudge with some success and are still being used. He finds it hard to cover large areas with newer frost-protection devices.

Thinning

Thinning peaches is still an expensive problem. Chemical thinners have been used here for many years with minor success. Shakers have also been used with some success, but much of the thinning is still done by hand and costs as high as \$6 per tree.

A disc harrow is still used in the orchards. Chemical weed controls are used under both peach and apple trees. Apples are grown in sod, but peach trees grown in sod have a tendency to weaken after a few years.

In two out of three years, irrigation for peaches is a must in this area. It's expensive, and takes a lot of labor . . . and nobody likes to lug pipe.

Larchmont Farms fumigates many orchards for nematodes before planting. Nematodes are a serious problem in peach orchards, and in one stricken apple orchard trees are stunted and short-lived.

The pick-your-own program will continue to play an important part in Larchmont Farms' harvest. It takes a lot of work, know-how, and many little "tricks of the trade." As Haines says, "Wagons stop at the apple orchard first. If customers get peach fuzz down their necks they may not stay as long!"

VEGETABLES



Potato Yearbook — The new 1971 American Potato Yearbook is off the press with information covering every phase of the potato industry. Of special interest is the illustrated article, "Winter Management of Potato Storage," by Daniel Fricke, Cooperative Extension agent of Suffolk County, New York.

Included are more than 450 new references covering potato culture in the U.S., Canada and foreign countries, as well as names of more than 350 leading potato research workers, certification agencies and

periodicals. The 8-page Onion Supplement has also been brought up to date.

Copies of the yearbook are available for \$2.75 each (\$3.25 outside the U.S.A.) from: American Potato Yearbook, P.O. Box 279, Scotch Plains, New Jersey 07076. A complete volume, 1951 through 1971, is available at \$34.

Greenhouse Grown — Cucumbers may join tomatoes in a "Rutgers line" of fresh vegetables that can be successfully raised in plastic greenhouses.

A new Dutch type of "burpless" cucumber called Konkommer . . . grown in a plastic greenhouse at New Jersey's College of Agriculture by George Taylor, professor of vegetable crops . . . has already won excellent consumer acceptance in test marketing and may be ready for recommendation to Garden State farmers for greenhouse production after another year of research. Konkommers grow to a length of 15 inches, weigh about a pound, and Dr. Taylor claims they have a sweeter, more melonlike flavor than U.S. varieties.

Foiling the Pests — Researchers and growers in widely separated areas of the U. S. have far more than doubled vegetable yields by using aluminum foil to repel aphids and the mosaic virus they carry. Now the USDA's Agricultural Research Service reports that foil mulches can reduce Mexican bean beetle damage to garden beans by nearly 50 percent. Light reflected by the shiny foil upward to the underside of the leaves, where the beetles feed and lay eggs, disturbs the adult beetles. They feed less and lay fewer egg clusters per female.

Coated Seeds — A special process for pelleting small and irregular seeds to make them larger and of more uniform size . . . and consequently easier to handle and plant . . . has been developed by a Dutch company, Royal Sluis of Enkhuizen. Coating material contains no fertilizers or pesticides, and seeds must meet high requirements of germinative power, purity and grade quality. For full information, write to: Netherlands Consulate General, Commercial Division, Dept. P-S, One Rockefeller Plaza, New York, New York 10020.



Metric ruler at left gives idea of size of seeds before pelleting, and when all wrapped up (above).

American Agriculturist, September, 1971

**Why break your back
at feeding time?**



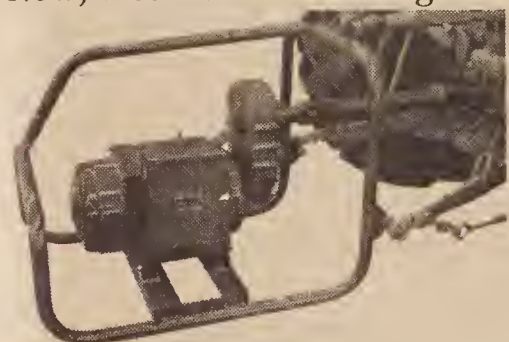
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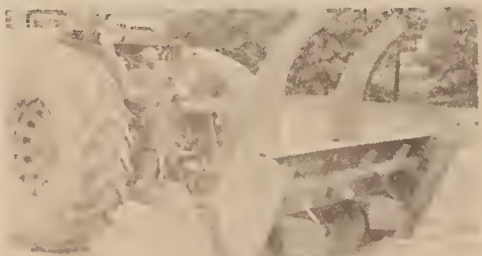


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Also gas engine, under-the-hood, and compact tractor models. Some stocking distributors needed.

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SNOW-MASTER



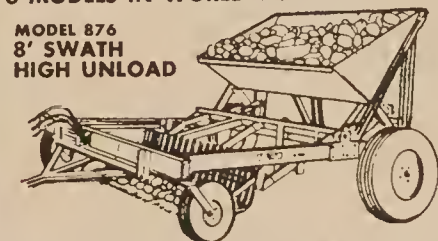
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THE UNITED WAY

Dollar Guide



DU PONT'S "BENLATE" ... a systemic fungicide especially effective against mold in snap beans ... is now registered and available for use on this and other crops. Other systemic fungicides are on the way up the registration ladder ... may open a new era of plant disease control.

HORSE OWNERS are uptight about Venezuelan equine encephalomyelitis (VEE), which has already killed hundreds of horses in Texas. Massive program of vaccination and mosquito control (with sprays of malathion and dibrom) in Southeast should stem the tide.

Expect reverberations to continue for some time, though ... quarantines, restricted movement of horses, and other special requirements.

QUACKGRASS remains one of the most troublesome weeds in Northeast. A split application of atrazine herbicide ... part in fall, and part next spring ... is preferred method for controlling this pest.

BEST CORN SILAGE is made when grain is at the dent stage. Harvested earlier, the crop is well below its potential yield of nutrients per acre ... left until later, increased field losses and lower digestibility are problems.

MASTITIS CONTROL field research is into 4th year on Central New York farms. Excellent results continue from dipping teats into a disinfectant after each milking ... then a massive infusion of antibiotics into each quarter at drying-off time.

BEEKEEPERS can recover for bee losses dating back to January 1, 1967 ... if pesticides did 'em in under specified conditions. Local ASCS offices have details.

CLASS I USE of milk was 37.5 percent in Puget Sound federal milk marketing order (No. 125) for May, 1971. Receipts of producer milk showed 63 million pounds as "base" milk, and 75 million as "excess" milk. Order 125 is the only federal order having Class I Base Plan.

BONE BREAKAGE of caged layers during marketing of spent hens can be prevented by adding calcium to ration two weeks prior to slaughter. Florida researchers recommend doubling calcium content ... normally, this would be from 3 percent to 6.

PTO STANDBY GENERATORS require two horsepower from the tractor for every 1,000 watts of generating capacity.

Another handy thumb rule ... it takes almost four times as much current to start an electric motor as it does to keep it running.

ELECTRIC MOTORS with horsepower ratings up to 50 are available in single-phase in General Electric's lineup of Clydesdale motors. Company offers a 20 hp motor with the starting current of a 5 hp motor.

INTERNAL PARASITES reduce milk production, stunt dairy heifers. Statewide survey in Wisconsin reveals roundworm infestation in 78 percent of dairy cattle checked.

Your vet can arrange a test for internal parasites ... and recommend control measures.

CORPORATIONS operate 7 percent of U.S. farmland, collect 8 percent of total cash farm receipts ... so reports USDA. There are 13,300 corporation farms, two-thirds of which are family corporations.

A copy of "Corporations With Farming Operations" (AER209) is available free from Office of Information, USDA, Washington, D.C. 20250.

NEW FARM TRACTORS cost about \$109 per drawbar horsepower, as compared to \$105 in 1961... less than a 4-percent increase, reports John Kaine of International Harvester.



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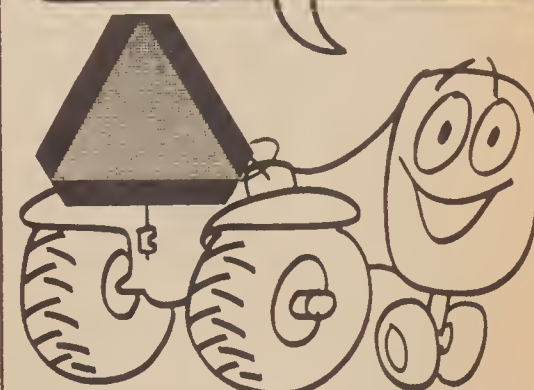
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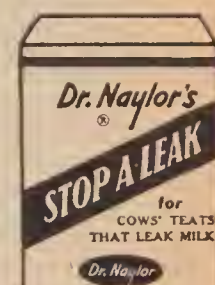
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Add \$1.00 for postage and handling.	
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The volume contains illustrated ads for whiffletrees, Maxfer Trucks, washboards, Hanson's Magic Corn Salve, Madame Foy's Skirt Supporting Corsets, Sturges Milk Cans, stereopticons, and scores of other items which today exist mostly in memories and museums.

Two dollars invested now will bring you hundreds of hours of appreciation of what we have today, and provide for your children an educational experience that cannot be found in any school.

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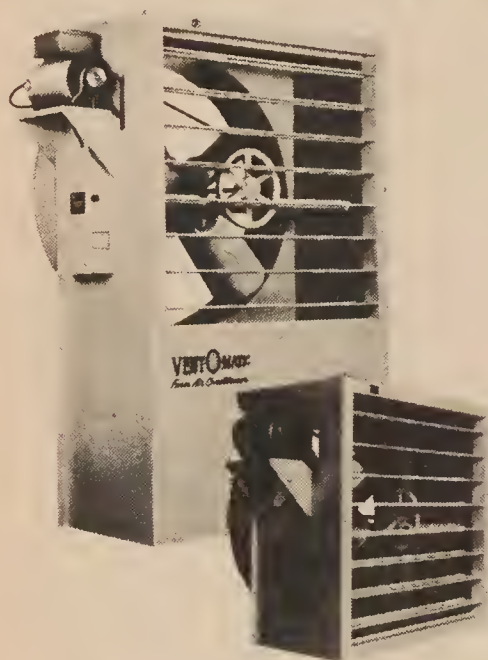
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Vent-O-Matic's farm air conditioner has proven to be the TOPS in ventilation . . . Why? . . . because it's not a stop-and-go fan, it's a 2 level 3 volume "Satisfaction Guaranteed" unit that removes stale, germ-laden air from an entire enclosed area continuously.

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AGWAY

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Bicycling is one of many ways to see Bermuda. Here a couple pause to photograph a 17th century fort.

TAKE A FALL VACATION

Just imagine the thrill of spending Thanksgiving in Bermuda! Enjoy a week on this magic island, a pastel land of coral and jade where the sun almost always shines. The dates for our Thanksgiving in Bermuda Holiday are November 21 to 27, and the price is unbelievably low — just \$322.50 per person from New York City or Boston. The price is only slightly higher from other points of departure in New York State.

This low price includes air transportation, a twin-bedded room at the Princess Hotel (probably the finest in Bermuda), breakfast and dinner each day, and tips for these meals. Luncheons and sightseeing tours are not included.

There are all sorts of interesting and exciting things to see and do in Bermuda. You'll sightsee in a horse-drawn carriage or tiny taxi, driving around the island and exploring 17th Century St. George with its crooked streets. You'll want to visit Crystal Caves, the Devil's Hole, Sea Gardens, Ft. St. Catherine, the House of Assembly and Salt Kettle Settlement.

Hamilton, where the Princess Hotel is located, will be your shopping headquarters. It's a veritable showcase for British products, all at exciting low-tariff prices. And, of course, you can sun and swim to your heart's content, play golf at the world-famous Mid Ocean course, fish in the surf or go deep sea fishing for the big ones.

Just tell your tour escort what you want to do while you're in Bermuda, and all arrangements will be made for you. Send for the folder today and make your reservation soon.

Reunion Weekend

Our 1971 Get Acquainted & Reunion Mixer will be the weekend of October 22 to 24 at the beautiful Hotel Hershey located in "Chocolate Town, U.S.A.," Hershey, Pennsylvania. The hotel is located high on a hill, overlooking picturesque

Hershey, and offers gracious hospitality, timeless charm, and delicious meals.

If you have never toured the Hershey Foods Corporation, we urge you to arrive before two o'clock Friday afternoon. Hershey is the world's largest chocolate and cocoa plant, and we feel sure you will enjoy seeing it. Our sightseeing on Saturday morning will include other highlights of Hershey.

You will see beautiful travel films; slide shows will be presented by people who have gone on various AMERICAN AGRICULTURIST and Travel Service Bureau tours, and you will be the first to hear about our 1972 travel program. Cost for the entire weekend, based on two persons sharing a twin-bedded room with private bath, is only \$73.00 per person.

Other Great Trips

If you hurry, it is still possible to join our New England Fall Foliage Tour from October 1 to 9 or to spend Aloha Week in Hawaii from October 11 to 23.

Enjoy New England's gorgeous spectacle of changing autumn colors, as you visit such well-known and beautiful places as Sturbridge Village, Plymouth, Cape Cod, Boston, Salem, the White Mountains of New Hampshire, Franconia Notch, Vermont's Green Mountains, and other places too numerous to mention.

In Hawaii we'll visit the four main islands — Oahu, Hawaii, Maui and Kauai. We'll see volcanoes, a black sand beach, coral reefs, Pearl Harbor, Waimea Canyon, fields of ripening pineapple and sugar cane, thousands of exotic tropical flowers, and much more. The added highlight of Aloha Week festivities makes this an especially attractive vacation.

We invite you to send for descriptive folders for as many of these tours as you wish.

Fill out the coupon and mail it today.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Aloha Week in Hawaii _____ Reunion Weekend _____
Fall Foliage Tour _____ Thanksgiving in Bermuda _____

Name _____
Address _____
Zip _____

(Please print)

WHETHER YOU PICK tomatoes in your own garden or choose them from the bounty of nearby farms, there is still plenty of time to serve these fresh, tangy-flavored, bright-colored beauties. Don't forget that the last green ones can also be turned into favorite products to enjoy now and later. One of September's memories is the spicy fragrance coming from nearby kitchens, as chili sauce and catsup simmer gently on the stove. Make this month count for tomatoes in your kitchen.

STUFFED TOMATO SALAD

Cut stem ends from the desired number of tomatoes. Peel before cutting, if you wish, and chill. To peel, dip tomato into boiling water for ½ minute and then into very cold water. Skin will slip off easily. Turn tomatoes stem end down. Cut each tomato into 4 or 5 petals, but do not cut completely through the tomato. Press back petals lightly.

Sprinkle lightly with salt and fill with your favorite salad mixture

PICCALILLI

- 1 quart chopped green tomatoes
- 1 cup chopped sweet red peppers
- 1 cup chopped green peppers
- 1½ cups chopped onions
- 5 cups chopped cabbage
- ½ cup salt
- 3 cups vinegar
- 2 cups brown sugar, firmly packed
- 2 tablespoons whole mixed pickling spice

Combine vegetables, mix with salt, let stand overnight. Drain and press in a clean, thin, white cloth to remove all liquid possible. Combine vinegar and sugar. Place spices loosely in a clean cloth; tie with string. Add to vinegar mixture. Bring to boil.

Add vegetables, bring to a boil, and simmer about 30 minutes, or until there is just enough liquid to moisten vegetables. Remove spice bag. Pack hot relish into clean, hot pint jars. Fill jars to ½ inch of top. Adjust lids.

Process in boiling water for 5 minutes (start to count processing



TOMATOES-Red and Green

by Alberta Shackelton

of cottage cheese, tuna, salmon, crab, lobster, chicken, turkey, ham, curried potato salad, egg, or vegetable. Place tomatoes on crisp greens on attractive platter and serve with plain or chived mayonnaise or other choice of dressings.

BROILED TOMATOES

Remove stem and end from desired number of firm, ripe tomatoes, but do not peel. Cut each in half and place on baking sheet with cut sides up. Make light crosswise cuts on top of each. Sprinkle with favorite topping and broil in a preheated broiler 3 to 5 inches from heat until top is brown and slightly bubbly.

Good toppings: Butter, pepper, seasoned salt; dry bread crumbs, butter, salt, pepper and basil or mixture of dry herbs; bread or other crumbs and grated cheese. May be topped with broiled mushrooms.

To serve, place a broiled tomato half on top of half slice toast and top with salt pork gravy or other desired sauce.

SQUASH AND TOMATO CASSEROLE

- 3 medium-sized summer-type squash (Zucchini, white scalloped, yellow)
- 4 medium tomatoes, peeled and sliced medium thick
- 4 slices cubed crisp toast
- 1 medium onion, sliced
- Butter
- Salt and pepper
- Grated cheese

Slice unpeeled squash (quarter scalloped first) in ¼-inch slices. Layer slices of each squash with sliced tomatoes in a baking dish, sprinkling each layer with onion slices, toast cubes, salt, pepper and dotting with butter. Sprinkle top with grated cheese mixed with some fine dry crumbs. Bake in a moderate oven (350°) about 30 or 40 minutes, until squash is desired tenderness. Serves 6 to 8.

American Agriculturist, September, 1971



A hollowed-out tomato makes a tangy case for all kinds of delicious fillings, hot or cold.

time as soon as water in canner returns to boiling). Remove jars and complete seals if necessary. Set jars upright on a wire rack to cool.

OLD FASHIONED GREEN

TOMATO MINCEMEAT

- 3 quarts chopped green tomatoes
- 1½ quarts pared, chopped tart apples
- 2 cups raisins
- 1 cup currants
- ½ cup diced candied citron, lemon or orange peel
- 2 teaspoons ground cinnamon
- ¼ teaspoon ground allspice
- ¼ teaspoon ground cloves
- 1½ to 2 teaspoons salt
- 3 cups brown sugar, firmly packed
- ¾ cup vinegar
- ¼ cup lemon juice

Combine all ingredients in a large heavy pan. (Omit cloves if you plan to freeze mincemeat.) Cook mixture slowly until it is tender and thick.

Allow about 2 hours. Stir frequently to prevent sticking.

To can, pour boiling mixture into hot, sterile jars and seal promptly. Store in a cool dry place. To freeze, pack cold meat into freezer jars or containers, leaving about an inch headspace for expansion. Seal and freeze promptly.

FRESH TOMATO RELISH

- 1 quart chopped ripe, peeled tomatoes
- 1 cup chopped celery
- ½ cup chopped green pepper
- ½ cup chopped onion
- 1 teaspoon salt
- ¼ cup sugar
- 1 tablespoon mustard seed
- ½ teaspoon ground nutmeg
- ¼ teaspoon ground cinnamon
- ½ teaspoon ground cloves
- ½ cup vinegar

Combine all ingredients and mix thoroughly. Place in clean jars, cover and refrigerate. Will keep several weeks. Makes about 2 pints.

ERMA'S CHILI SAUCE

- 12 large ripe tomatoes, peeled and chopped
- 3 medium onions, chopped
- 2 green peppers, chopped
- 2 tablespoons salt
- 2 cups vinegar
- 1 tablespoon dry mustard
- 1 teaspoon cinnamon
- 1 teaspoon nutmeg
- 1½ cups sugar

Use coarse grinder for chopping vegetables. Combine all ingredients and cook over low heat with occasional stirring until the desired thickness, about 1½ to 2 hours. Pour boiling mixture into hot sterilized jars, filling to top and sealing immediately. Makes 4 to 6 half pints.

FRIED RED OR GREEN TOMATOES

- 4 to 6 medium green or ripe tomatoes
- 1 egg
- 1 tablespoon water
- Fine dry bread or cracker crumbs, or crushed ready-to-eat cereal flakes
- Butter
- Salt and pepper

Wash and cut tomatoes into ¾-inch slices. Beat egg slightly with a fork and stir in water. Divide crumbs into two separate dishes. Dip slices into crumbs first, then into egg, and then again into crumbs, being sure each slice is well coated. Sprinkle with salt and pepper.

Sauté in heated butter, turning to brown on both sides. Remove to hot platter and serve with Creamy Gravy or Celery Sauce.

For Creamy Gravy, stir 1 to 1½ tablespoons flour into pan drippings, then stir in 1½ cups milk and cook until thickened, stirring constantly.

For Celery Sauce, sauté ½ cup minced celery in 2 tablespoons butter, stir in 1½ tablespoons flour and 1 cup milk. Cook until thick. Season to taste with salt and pepper and onion salt if desired.

Note: Use 2 eggs and 2 tablespoons water for 6 tomatoes.



A GOOD START

Now is the time for planning for your future, long range planning for your farm, your children's education and your retirement. Now is the time to start.

Fortunately, the government provides a tax advantage for the self employed farmer through the Self Employment Retirement Act (HR-10).

Be sure to talk with your experienced Farm Family representative. It's a good start towards a secure financial future.



GARDEN TALK

by Doc and Katy Abraham

Winterizing Roses

We hate to rush the season and talk about winter, but it will soon be time to winterize your roses. We have tried a good many methods for protecting roses against winter cold and are convinced that hilling up soil around the base of the plants is the best means.

Quite a few AA readers are using the styrofoam rose "Kones," but these protectors are not 100 percent perfect. One reader wrote me,

"We grow more than 300 rose bushes, and because we live in an open rural area where strong winds blow, we experimented with the Kones. We would like to tell those who plan to buy or use them that while the Kones probably offer the best protection available, you must drill holes in them for ventilation. Without ventilation the stems mildew or rot. Also, don't make the fatal error of putting the Kones over the plants before they are fully dormant.

"One more warning — mice and other small rodents like to live inside during the winter. The first year we used the Kones we uncovered the bushes in spring to find that while the canes were quite green and healthy on top, their bases had been ringed and ruined by mice. The mice actually built nests inside the Kones!

"Now, before covering with the Kone, I put a bait trap containing mouse poison at the bottom of each rose plant, fixing it in such a way that it cannot be disturbed by our children or pets. Moth balls are also great inside the Kones to repel rodents."

We appreciate this bit of information and hope it helps readers bring their roses through the winter.

Green Tomato Time

Right now many gardeners (especially those who live in areas where frost comes early) find they have a lot of green tomatoes hanging on the vines. There are tricks for getting more mileage from these late ripeners.

Some gardeners pull up their vines before frost and hang them upside down in a garage where the green fruit gradually turns red. Some say a better trick is to pick the green tomatoes and place them on a wire tray in a cool cellar. They put a piece of newspaper over the tray and place the green fruit on the paper. Some tomatoes last until Thanksgiving when kept this way. Do NOT store tomatoes in a bright, sunny window.

If you pick green tomatoes, the best temperature for storing them is about 55 degrees. At this tempera-

ture, color development will take place slowly and fruit will keep longest. Keep ripe tomatoes in one container, fruit developing red color is another, and those that are green in a third container.

Ripe tomatoes can be kept in a refrigerator at about 40 degrees for 2 or 3 weeks. Store them one layer thick; sort them every 2 or 4 days, discarding the bad ones.

One reader tells me he keeps green tomatoes a long time after frost by using a weak solution of household bleach (1 teaspoon to a quart of water) to disinfect the fruit. First, wash the green fruit with the bleach solution, then dry with paper towels. Pack tomatoes in bushel baskets in fresh newspapers and store them in a cold part of the cellar (is there such a thing in our modern homes?).

Screen Your Chimney

We recently went through the agonizing experience of getting a live bird out of our fireplace. It fell down the chimney (birds can't fly straight up), and it took me three hours to free the bird. I was careless; I should have placed a wire screen over the top of the chimney. We wonder how many birds die in fireplaces and chimneys. I hope every AA reader will screen the top of his chimney before a bird gets trapped inside.

AA Garden Clinic

A reader writes, "Please tell us what care our poinsettia needs to flower at Christmas time. It's still outdoors."

Answer — Take the plant up and bring it indoors. Sometimes the leaves will turn yellow and drop off after being moved because the roots have been disturbed and broken. Don't worry, as new leaves will form.

Put the plant in a dark room each night at 7:00 p.m. and bring it out at 8:00 a.m. from now until Thanksgiving. This day-night treatment helps it to form buds and flower for Christmas. If you don't put it to bed, it'll bloom later, perhaps around Easter.



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POWER FAILURE

by Donna Evleth

I've chased the children all day long. At bedtime they're still going strong, While I, deprived of rests or naps, Am bordering upon collapse.

Which leaves me wondering indeed Why when I'm in such dire need — When all my spring has come un-sprung — Energy's wasted on the young.

AROUND

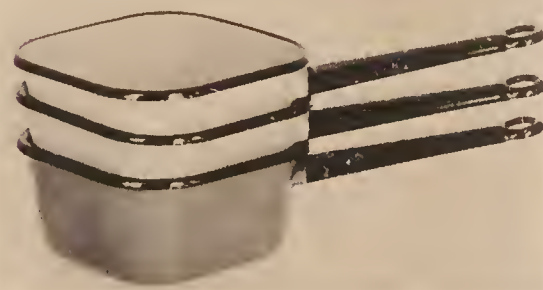


the HOUSE

New from Corning Glass—Electronic Serving Tray with two temperatures, one for keeping foods at serving temperature and one for warming finger foods on serving tray. Tray has specially designed cord; simply reverse plug to change tray temperature. Retail price, \$24.95.

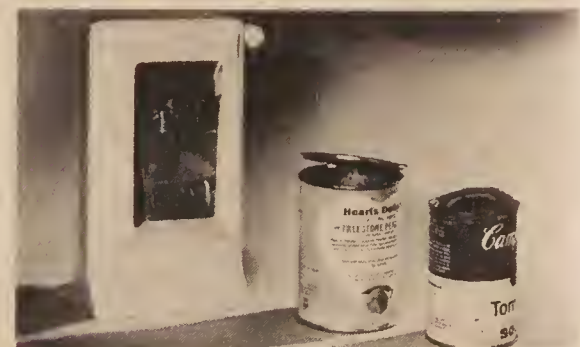


New stacked pans save shelf space. Lisk (United States Stamping Co.) 1½-quart, square sauce pans can be stacked in a 6"×6" space. Available in avocado green, royal blue or vibrant orange, all with black trim and handles. Look for them at hardware and department stores. Suggested price, \$2.49 each.



Two new products from Westinghouse — the "Sesame" electric can opener cuts rim of can without piercing the top. This allows lid to be replaced on the can with a snug fit.

Remove two plugs from the Clean Steam iron and remove burned lint and water scale with cleaning brush which comes with iron.



Introduced at the July Housewares Exposition in Chicago — a self-buttering electric corn popper with a lid that holds butter to melt and drip down on the corn as it pops.

American Agriculturist, September, 1971

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Information on how to use baler twine and what size crochet hook to use with it? This request comes from- Mrs. George Wehrenberg, R. D. 1, Box 393, Kennedy, N. Y. 14747.

A picture postcard of the Tenth Commandment made by the Rose Company, copyright 1908? Mrs. Delmer Haire, Sr., R. D. 1, Ovid, N. Y. 14521, would like this to complete her set.

A 1969 Hummel calendar? Mr. Rolland Thompson, R. D., Box 107, Canaseraga, N. Y. 14822, would like to find one.

A recipe for Orange Blueberry Pudding? This request comes from Mrs. Mabel Hadley, Conewango Valley, N. Y. 14726.

Instructions for making rugs or mats from plastic bread wrappers? Mrs. Merton Grant, R. D. 1, Goffstown, N. H. 03045, would like help.

Thanks!

Mrs. Tina Rebuerta of Holmes, N. Y., wants to thank the 53 people who responded to her request for a flaxseed cough medicine "recipe."

Mrs. Rebuerta writes, "I anticipated getting a recipe directly from you and at most a couple from your subscribers. You may well imagine my great surprise to find that a total of 53 responded to the brief article published in the December issue."

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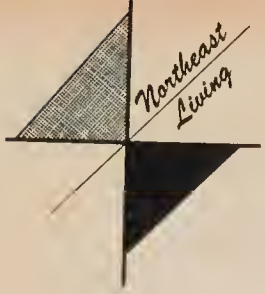
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SANDY TAKES OVER

by Louise Price Bell



Elizabeth Harrison looked up as she heard a car stop in the driveway, then a child's light laugh, and her heart lifted in sudden happiness. She ran eagerly through the farm house to meet her younger sister, Susan, and the baby; his red-gold hair shone in the sun. No wonder they called him Sandy! Looking at him on her husband's broad shoulders filled her with half-joy, half-pain... it had been three years, three long, too-sad years.

Then Susan and she were hugging like school girls. "So this is Sandy!" Elizabeth said. "Give Aunt Liz a big bear hug darling." She held out her arms and the wide-eyed, three-year-old came to her. Her hungry arms held him tightly. Herb ruffled the child's red-gold hair and smiled, which relaxed the habitual sternness of his mouth.

"Sandy looks like Susan except for the carrot-top. I never knew you girls had any red-heads in the family."

"I guess you never did meet our Aunt Sarah, Herb," said Susan. "Dad used to call her a 'strawberry-blond'. She was a real red-head."

The baby might have been hers, Liz thought, so perfectly did he fit into her arms, so quickly did he fill the emptiness of her heart. The last time she and Susan had been together they had been planning happily for their first babies, dreaming of the futures for the two lives beneath their happy hearts. The babies had been born two weeks apart, hundreds of miles from each other, but only Susan's had opened sleepy eyes to the world.

Liz's fingers trembled as she unbuttoned his sweater. "There, Mr. Sandy, you are at Aunt Liz's and Uncle Herbie's farm."

Herb brought the luggage from the car and said, "That's all, Sue. I must get to work. The tomatoes are falling from the vines and Jake's having a tough time trying to do it alone."

"Run along, brother Herb. I'm not surprised you can't waste time. Your farm looks 'neat as a pin'."

Elizabeth noticed the pride that lighted her husband's face for an instant, the gleam that came into his sober brown eyes — Herb always had the farm to occupy his thoughts, to keep his days filled.

"I wanta' go, too," Sandy piped up. "I wanta' help Uncle Herbie," he started to follow.

"Tomorrow you may help,

dear," she promised hopefully. "You can dig, and rake, and hoe, and watch Uncle Herb milk the cow." Her eyes met Susan's. Would their plan work as they hoped? Would having a child a week break Herb's stubborn resistance against adoption? Would it make him see that no home could be a truly happy one without children, even though they couldn't be your own?

Later, when Sandy had been put to bed for a nap, the two girls lay side by side and talked softly. "Herb's so stubborn about adoption," Liz said miserably. "He won't even let me talk about it, says he wouldn't want a child who wasn't his own. He used to talk about having a son... of sending him to agricultural school, of buying that wooded section north of us, and that sometime we might want two homes on our land. He never mentions it any more."

"Sometimes I get panicky, Susie; it seems as if Herb has turned to the land for compensation. I have nothing that will draw him back to me, it seems," she ended miserably.

"You're crazy, Liz!" said Susan. "It isn't your fault that Herb's son died and you can't have another child. How can Herb fail to see how empty your life is! Maybe we should tell him..."

"No... no! You don't understand Herb, Susan. He'd never forgive me. He's so proud and... it just wouldn't do. If he changes in his feeling, it has to come from inside himself. Herb can't be forced. He has to realize that our lives aren't complete. I hope little Sandy will make him realize..." But the yearning in her heart went on as she slipped into a cool shift and started downstairs.

In the kitchen, Liz put apples to cooking for sauce, scrubbed big brown potatoes and popped them into the oven beside the luscious-smelling chicken. She skinned plump red tomatoes and sliced them in thick slices and put them into the refrigerator. Just then Susan came with Sandy, fresh from his nap, his blue eyes clear and bright.

"How about gathering the eggs with Aunt Lizzie?" Down the sloping lawn toward the

barn they went. The late afternoon sun shone into the henhouse. Sandy was fascinated. "Eggs... eggs" he repeated over and over as Liz gathered the white ovals, and he was allowed to take two from a low nest. Her heart warmed as she answered his childish queries... why "chickies" went to bed so early and why they didn't sing like the birds in the park. Her own little son would have been like this — curious, alive and eager.

"Where's Uncle Herbie?" Sandy asked.

"I think he's milking, darling," Liz answered. "Our one cow is very temperamental but she gives good milk."

"What's cow's name?" asked Sandy. "I want to see him. Moo-moo-moo!"

"Our cow is she; her name is Zazu. Isn't that a funny name for a cow?"

"Let's go see her, Sandy." Susan was off toward the cowshed before Liz had time to say anything. With a stab of foreboding she hurried after them. Before she reached the door she heard Herb's voice filled with alarm, "Get out, you two. Get out!"

Then she saw him standing grim and angry in a pool of milk, the empty pail at his feet. Zazu was moving about in agitation, her eyes wild and fiery.

Susan, with Sandy in her arms, ran into Liz at the door, her expression one of fright, anger and confusion.

"Moo-moo bad. Moo-moo spilled Uncle Herb's milk," the child piped.

Herb picked up the pail. "Sorry, Sue, I shouldn't have barked at you like that. But Zazu goes wild at the sight of anyone but me when she's being milked. Even Liz never dares go near her."

There seemed to be a new, listening hush that night when Liz slid into bed beside her husband... as if the house were softly chanting, "Shh, a baby sleeps beneath my roof after so long... so long." She and Herb had hoped to have at least three children, had talked and planned for them. They wanted average kids, freckled, snub-nosed... happy kids like Sandy.

"Isn't Sandy adorable, Herb?" Liz asked softly.

"Huh?" Herb half asleep,

answered; "Yeah... he's cute."

She knew the weight of her husband's grief was a burden for him, too. It was hard for him to lose his son. Herb was virile, vital, full of the love of life which made it almost impossible for him to accept the decree that he could never have a child of his flesh and blood... but how much harder for her who bore the baby they lost. He could not know the pain of laying away tiny garments nor the anguish of listening in empty rooms, or thinking, "Today, he might have said his first word." If only she might have another child, though not her own, to fill the void in her life!

Dr. Sherman had said, "Don't take it as such a tragedy... remember there are thousands of youngsters who are literally holding their arms out to parents like you two." This had been a wonderful thought to Liz, but not to Herb. The grief, the mutual loss, which should have brought them closer had become a barrier. They had tried to make the small circle whole again but it wasn't and they knew it.

Could he never understand that she needed children about her? Though they later grew away from you, you would at least have built something into the new generation. They were far too young to let tenderness and happiness slip away. She could never nag Herb to win her way. There was a whole week ahead in which the too-quiet house would be brought alive by one tiny boy — before Susan's lawyer husband Tom would come for his wife and small Sandy. Could those baby hands perform a miracle?

Next morning on her way to start breakfast, Liz stopped in Sandy's room, picked him up and held him on her lap. "Let's put your socks on first, darling," she said. Happily she washed his wide-eyed, snub-nosed face, combed his reddish hair, then put on him the blue overalls she had bought the last time in town.

"I look like a farmer, Aunt Liz, like Uncle Herb."

"You sure do, darling, and you may go and help Uncle Herb in the garden while I get breakfast."

"I wanta help Uncle Herbie," echoed the child.

Liz watched with a lump in her throat — Herb straightened as Sandy called "Hi!" A slow grin spread over Herb's too serious face. Bending down he said something to Sandy and the child began to pick up little stones and put them in a pile.

Liz couldn't refrain from going down... Herb was saying, "These aren't weeds, Sandy. They're carrots. Maybe you'll have some for dinner." Herb stiffened when he saw Liz, his face hardened and he said, "Take him in with you, Liz. A kid's a nuisance in a garden; he might get hurt."

Liz took Sandy back to the

(Continued on page 25)

American Agriculturist, September, 1971

house, gave him some blocks. But a little later, glancing out the window she saw him trudging down the slope. Busy with orange juice, bacon, waffles and hot muffins, she glanced from the window. Herb kept steadily at his hoeing. He paid no attention to his small companion except when the little figure got in front of his hoe, then he would grimly lift the baby to one side.

After supper, Sandy climbed on Herb's lap to kiss him good night. He accepted the tight hug and kiss with a self-conscious grin but looked relieved when Susan took Sandy to bed.

Was it too late for him to open his heart to a child not his own, Liz wondered. Maybe tomorrow

The days sped by for Liz with fearsome swiftness. She was grateful for every treasured minute with Sandy. But the uncertainty in her heart grew, and she felt Herb would be glad when he could settle into the old, quiet routine again.

Susan was packing to leave when Liz suddenly went rigid. "Where's Sandy?" Speeding through the hall and down the stairs her thoughts were black with foreboding. As she turned toward the barn she saw a quick flash of blue and the shininess of a milk pail. In terror she headed toward the shed visualizing Sandy's small, fearless head bent over a pail at Zazu's side. One blow of a hoof from the unpredictable animal . . .

Herb, white faced, dashed down the slope. Zazu was unaware of their presence. Her great thick head moved from side to side, her belly heaved. There was Sandy sitting calmly and unafraid on the three-legged stool, jabbering to himself. "Nice moo-moo," he said, patting Zazu's heaving side. Then Herb was beside the absorbed figure, his face ashen beneath streaks of dust and perspiration. He started unbelievably. Then a queer laughing light blended with tears. "Good heavens!" he whispered. "She likes him." Pushing his hat to the back of his head, he wiped his shirt-sleeved arm across his beady forehead. "I expected to find him trampled. As I ran I kept thinking how he had kept saying he wanted to be a farmer."

Looking up at Herb, Sandy said, "No milk in the pail, Uncle Herb."

Herb lifted the child from the stool, sat down and held him between his knees. Herb began milking Zazu, the tiny fingers almost lost beneath the man's huge brown ones.

As the girls started for the house, Susan asked, "Shall we tell him?"

"No, not now, Sue. Let's let them get acquainted."

After Zazu had been milked, the chickens fed and the tiny new pigs inspected, Herb and Sandy came to the house. "Sandy's decided he really wants to be a farmer," said Herb, an uncommon softness in his voice.

American Agriculturist, September, 1971

"Do you think, Sue, we could make some kind of swap? Sandy for one of the new pigs, or something like that?" He laughed as he lifted Sandy into his chair after Susan had washed his hands.

The phone rang; Herb went to answer it. "That was Tom." Herb looked puzzled. "He's driving out from town earlier than he expected, bringing Tom Junior with him. What is this? If Tom is bringing young Tom, who . . . who is Sandy?"

Elizabeth's lips trembled slightly. "Sandy is . . . is ours . . . if we want him Herb."

"I should have suspected something up . . . the way Sandy called Susan by her name instead of 'mother.' That red hair, too. But I don't get it . . ."

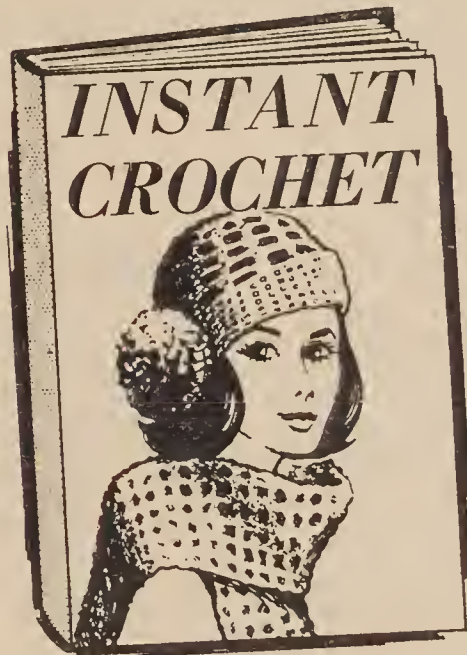
"Sandy's parents were killed in an accident," Liz explained softly. "He was put in a children's home, and up for adoption. Tom is president of the board for the institution, and he and Sue took Sandy temporarily because he was so sweet. They have their own Tommy and are expecting a new baby in the winter."

Herb swallowed hard. Then he said in a low voice, "Imagine not wanting him!"

Liz forced herself to put her last doubt into words. "He won't be the same as our own, Herb," she reminded him. "We must realize that. He might not want to be a farmer when he grows up."

"We'll have to take that chance, Liz. Maybe our own son wouldn't have liked farming either."

Their eyes met over the reddish-gold head. There was the shadow of the old grief in their depths but there was hope, too, and tenderness once more.



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Food For The Spirit



by Robert L. Clingan

THE LOST DIMENSION

OF WONDER

There is a vast difference between "childish" and "childlike." The Apostle Paul called Christians to a maturity of faith. In I Corinthians 13:11, he says that when he was a child he thought like a child, he reasoned like a child, but now that he has become a man he has put away childish things. At the same time . . . or twenty years before . . . Jesus said that a person had to become like a child to enter the Kingdom of God.

A number of attitudes and actions are childlike characteristics that belong to the Kingdom of our Lord. One of these that we have almost lost in our modern society is the childlike capacity for wonder. In fact, there are some people who believe that the vacuity and emptiness of much of our life today is the result of the loss of the ability to experience wonder.

Dr. Rollo May, in his book "Man's Search for Himself," defines or describes this lost sense of wonder as "the opposite of cynicism and boredom; it indicates that a person has a heightened aliveness, is interested, expectant, responsive. It is essentially an opening attitude . . . an awareness that there is more to life than one has fathomed, an experience of new vistas in life to be explored as well as new profundities to be explored."

It was Immanuel Kant, the philosopher, who said, "Two things incline the heart to wonder, the moral law within and the starry sky above."

It is this capacity to wonder about the moral law within and the starry sky above that marks men from other members of the animal kingdom.

Only man has the ability to measure right and wrong. The animal knows when he is punished and when he is rewarded, but only human beings know a thing to be right or wrong.

It was the prophets in the Bible who told the children of Israel they cried only because they were hurt, not because they were sorry they had done wrong. In this they were still animals and had not become fully human . . . they had yet to wonder about the moral law within.

Only humans wonder about the starry sky above. The animal knows when he is warm or cold, when it is light or dark. The human being looks at the sources from which heat and light have come, and wonders about their meaning, their existence, the laws by which they operate, and a possible divine creativity behind it all.

The little child, with his capacity for wonder, loves to repeat, "Twinkle, twinkle, little star, how I wonder what you are." The scientist at Palomar, whose charts . . . and finally observations . . . reveal a new planet, ought to greet this knowledge with a sense of wonder . . . otherwise he is only an automaton. To be human is to wonder.

As we grow older and more mature, may we never lose the childlike sense of wonder. Wonder will keep us open, keep us alive, truly human, and possible prospects for the Kingdom of God.

OUT OF STEP

The earth turns once around each day
According to God's plan,
And all the universe keeps step —
Except for stubborn man.

by D. A. Hoover



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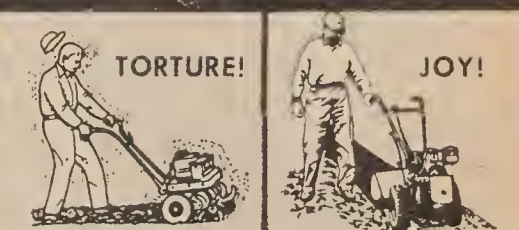
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23 OPEN HEIFERS

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American Agriculturist, September, 1971

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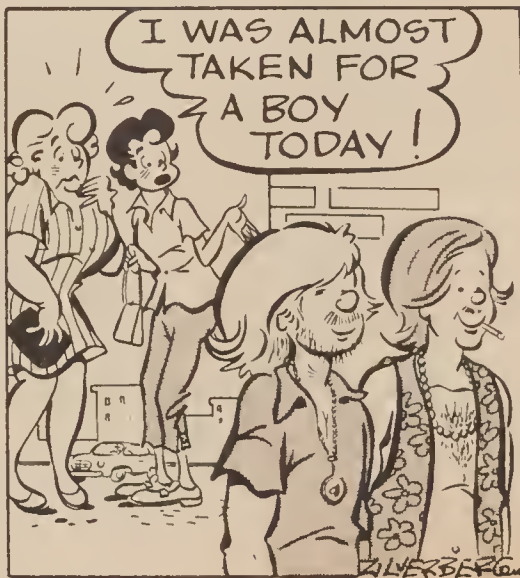
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FRUIT JARS WORTH \$1000.00 - New book prices 1500 kinds, where to sell, guaranteed, \$1.95 postpaid. Harvest Publishers, Box 3015-LS, Milwaukee, Wisc. 53218.

MONEY IN DONUTS - make new greaseless donuts in kitchen, sell stores. Free recipes Duncan, Ray, Waseca, Minn. 56093.

WALLPAPER - SAVE HALF. Huge 1971-72 catalog - 85 selections wallpaper 32¢ to 95¢ single roll; \$5.39 vinyls only \$2.75. Send 10¢. Mutual Wallpaper, Dept. 32F, 228 West Market, Louisville, Ky. 40202.

CATLOVERS DELIGHTFUL KIT-A-LOG — free! Tyoh Gifts, 436-A Center, Fort Lee, N.J. 07024.

30 LARGE TOWELS - \$2.98. Assorted, Lasiters, 16041A, Richmond, Virginia 23222.

PINE CONE FLOWERS. Make them for fun or profit! Send \$3 for kit and instructions, plus \$1.00 postage and handling. LouRu's, Willis, Texas 77378.

COLDWATER DILL PICKLES! Can in minutes! No hot brine! Delicious, crisp. Factory secrets! Recipe \$1.00. Hamiltons, Box 233-59, New Ulm, Minn. 56073.

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Gayway Farm Notes

by HAROLD HAWLEY

CORN VS. CORN

SOME of us didn't get all our corn harvested last fall. It came through the winter pretty well except for a few places which did go down badly. Anyway, in those down places quite a little corn went to waste. It got plowed down and germinated and is the "weed" in this year's corn field.

Naturally, no weed control chemical knocked it out, so it persisted. A few years ago we would have cultivated it out and should have this year, except we aren't even rigged to cultivate anymore.

Interestingly enough, the volunteer corn thrived early and then lost ground to the planted corn. Presumably, it is because of the fertilizer placed beside the planted rows.

We anticipate a poor crop in those parts of the field involved because the volunteer corn should act just like any other weed... that is, taking moisture, plant food, and light from the "good guys."

VANISHING DELICACY

Back in another era, I drove a truck for several months to help finance a college education. Deliveries were pretty much all over central New York, and at that time there were many places to stop for an ice cream cone. I carried lunch in the truck, and picked up a cone along the way for dessert.

A big cone... 10-cent size in those days... was pretty near a meal at the good places, and it didn't take long to learn where to get the most for your money. It was never a problem to find a place to get a cone; the decision involved only where to get the best buy!

A couple of times recently, Doris and I have thought to buy a cone as we were driving along. The first time it was some fifty miles and four towns later before we finally found a place offering ice cream "to go."

The next experience was not much different... just more miles and more towns before we got our teeth into some good cold eating.

I'm puzzled about all this. Certainly at 20-30 cents for a cone there must be a profit, yet there doesn't seem to be much enthusiasm for handling them.

FIELDER'S CHOICE

Our second activity of late has been studying road maps and planning a vacation trip. With time limiting what can be included, and the preference of individual family members to be considered, this involves a lot of compromise. After all the preliminary planning we stay pretty loose on the actual trip, stopping when we see something intriguing or taking a side jaunt

because someone tells us of something they enjoyed.

Then, of course, there will be a few little business stops on the way. We will visit a couple of feed lots, mostly to learn about feed-handling equipment.

We'd like to take a look at a system to handle and store shelled corn economically. Last time out in the Corn Belt, we noted a trend toward flat storage of dried grain. If we move from ear corn to shelled corn as we hope to do, it will involve not only new equipment but a whole new system of handling and storage and we'd like to learn some of the pitfalls and right answers from someone else's experiences. More on this later when we return.

MIGRANT PICKERS

We joined the crowd at an orchard a while back and picked a supply of beautiful black sweet cherries. There's nothing unusual about this. In fact, it's becoming more common every year.

As labor supplies dwindle... and the costs of paying for the labor and meeting the regulations for migrant workers go up... more and more fruit and vegetable growers are opening their orchards and fields for a U-Pick deal. In case you've not done this, let me give you a rundown on some of the interesting things we observed.

Whole families came, and the little tykes played around while the parents and older kids picked the fruit. Yes, everyone ate some of the cherries but I doubt if this is a serious item. After the first few minutes I found it more rewarding to fill the basket than the belly.

One enterprising daddy had a back-pack rigged up to carry his two-year-old. Up the ladder they went, both taking it quite casually.

Being a dairyman, I have all the expertise of any city dweller when it comes to orchards and fruit picking. I was sure that the biggest, ripest, sweetest cherries would be at the top of the trees where the sun hit them most, so I spent my time at the top of the ladder reaching for that next cherry that was so tempting. Doris picked from the ground. When our pails were full we compared the fruit. You guessed it! Cherries in both pails were beautiful and there was no noticeable preference, even after all that climbing!

Fashions

Clothes, of course, make the man... or woman... and a group of cherry pickers surely offers a liberal education in what is being worn this year. Shorts, halters, slacks or T-shirts, with an occasional more conservative soul wearing a shirt and slacks. Colors? Well, you name it and it was there.

All in all, it was a most interesting and rewarding experience. There is, however, a more serious aspect. One way or another... through mechanization, change to other crops, and by U-Pick... growers are switching from migrant and local labor.

Some people, usually not too close to the scene, think there is nothing but evil and exploitation about the whole migrant labor picture. True, there have been some instances of bad housing and poor seasonal returns, but present regulations protect the worker pretty adequately.

What seems to be overlooked is that once the field worker is done, the very doubtful lures of the big city are all that's left for these folks. Once there, with no salable skills, they find conditions no better, work scarce, and relief and loss of pride the common ends.

A THING OF BEAUTY

Our bank of crown vetch became a solid mass of blossoms about the middle of July and is a joy to behold. This vetch is the most puzzling plant. We were about to write off the whole stand this spring. There was hardly a sign of life and we guessed it had winter-killed.

Later, isolated shoots came up but not enough to make a show of any kind. All of a sudden the whole place was covered and spreading. Then when it began to blossom it became an attraction second only to the rose bushes.

PRINCIPLES AND INTEREST

We scoffed a bit at the truth-lending law when it was first enacted. We thought that anyone who was "borrowing" from his suppliers already knew what interest he was paying.

Just to show how little we knew, a casual glance at the schedule of an outfit with which we do some business suggests that it would cost 47½-percent annual interest if the bill ran that long.

We had never read that schedule before; we just took our cash discount and forgot it. It's quite apparent to me now that rather than be slow-paying, anybody who is a little short might better get the money from a bank at almost any rate of interest, and settle up with that, or any other such outfit!

HISTORICAL SPOTS

We seem to be in the business of saving for posterity. Forests must not be touched, although everyone should know that sustained-yield cutting would provide more of the good things for all concerned. We save old buildings, even if George Washington didn't sleep there. Canal locks, aqueducts, battle grounds, trolley terminals, weigh stations, blacksmith shops... you name it and someone is saving it!

Within reason this is fine so that future generations can get a glimpse of the past, but sometimes I think we go a bit overboard on these things. When a local historical society restores something the biggest input is voluntary labor. Let the state or federal government get into the act, and the cost to restore

and exhibit may well make the first cost look like peanuts!

There are times when local citizens might better put up enough money to do what they want done and let it go at that. Just as soon as they decide on some "easy" state or federal money, the project gets formalized and grows and grows until some are downright embarrassed at the investment. This being all tax money, perhaps we all have a stake in getting a little more from the money than seems likely on some of these projects.

CLEAR-SEEDED ALFALFA

This year we got a good kill on the weeds in our new alfalfa... or so it seemed until about mid-July. Along came the rains and weeds. By that time the alfalfa was almost big enough to cut so we cut it high and left it, thinking that would end the weeds. In two weeks they were back and had to be clipped again.

We would get pretty discouraged with all this if it weren't for the fine yields last year's clear-seeded fields gave us. Of course, if we had ever fed our seedlings made in wheat or oats the way we are feeding these, they too would have done better.

All we know for sure is that chopping the first crop is the only way we could handle it and the second crop gets so big and lush that it is a real problem to cure and bale. Better to worry about such a problem than how to keep a stand!

We did discover one thing this spring that hasn't bothered us before. On clay spots it was tough to get corn up this spring, because of the dry spell just at corn-planting time. On similar knolls the alfalfa stand wasn't all that good for the same reason. Back in late March when we seeded in wheat, the moisture would have been adequate and we would have had a stand there. In fact, once established alfalfa always thrived in such places.

LUNCH 40 FEET UP

When we are working fields far from home we usually carry our lunch. As we relaxed in the shade with our lunch recently we watched a flicker, or yellow-shafted woodpecker, feed her young. They were in a hole about 40 feet up in a dead elm (what other kinds of elm are there?).

Only two young birds appeared at any one time so I don't know how many appetites she had to satisfy; she was soming back with a "load" every few minutes. To feed them she went through a series of muscular gyrations, much like regurgitation, and down the hatch it went!

Only a mother could love the homely heads with their long woodpecker bills that greeted her each time she returned. The mother was a big, pretty bird with red crest, barred and spotted plumage, and yellow under the wings. The youngsters sure looked like something else at the stage when we saw them.

We speculated about their first flight. Probably like wood ducks, they either fly or can fall or flutter that far without damage. Once overboard, I suppose they soon learn to fly but it must take a little shove to get them started from that height.

American Agriculturist, September, 1971



by M. A. Parsons

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mr. John J. Hoffay, Sand Lake	\$5.00
(refund on subscription)	
Mr. Clarence H. Gillies, Clemons	4.87
(refund on plants)	
Mrs. Robert Space, Cortland	40.00
(payment for hay)	
Mrs. Elizabeth Ziga, Greenfield Ctr.	6.73
(refund on bulbs)	
Mr. Raymond Griffith, Boonville	25.50
(refund on parts)	
Mr. Donald Van Schoick, Williamstown ..	20.99
(refund on order)	
Mrs. James McNeil, Greenwich	12.80
(refund on book)	

PENNSYLVANIA

Mr. Michael Lucas, Evans City	30.83
(refund on trees)	

MARYLAND

Mrs. Joe Bounds, Princess Anne	7.75
(refund on order)	

MAINE

Mrs. Ina Robinson, Masardis	40.00
(refund of deposit)	

NEW HAMPSHIRE

Mrs. Peter N. Martel, Bennington	3.50
(refund on book)	

would be served by our trying to contact a company in Hong Kong, so we suggested that our subscriber write the Office of the Attorney General in New York City, feeling that office would be in a better position to deal with such a problem.

FINALLY ARRIVED

"Enclosed is the second form that I have received in reference to an order I sent in with a check for \$13.51 on February 7, 1971. I've written to Nature Food Centres five times about my order and sent back an identical form with information last week.

"I've been dealing with this company for years and only once before has my order gone astray or been delayed. Please do what you can to bring about my receiving either the vitamins or a refund."

On May 5 we wrote the company, and early in July our reader received part of the order. We wrote them again on July 15, and they advised us at once that a replacement order had been shipped.

They said, "Human errors occur in the best of regulated families, and I guess our 'family' is no exception. We guarantee safe delivery of all orders shipped on a money-back basis; thus, the consumer is always protected."

Our subscriber wrote on July 23: "Thank you so very much for your effort in my behalf. I received what I've been trying to get for months . . . a first class insured package. They could have saved all that postage by filling my order long ago."

BOX CLOSED

Letters, which we wrote to The Sheepfold, Box 405, Mt. Airy, Maryland, on March 2, April 5, and May 5, have recently been returned to us by the Post Office, marked "Box closed — No order."

If any reader has any information on this company, we would appreciate your writing us. We assume they are out of business.

ADDRESSES WANTED

Relatives of John Fuller, born in Easton, Pennsylvania, on July 13, 1915. Friends are trying to locate his son, Michael or John Michael, who supposedly is living with relatives on a farm in the Syracuse area.

* * *

Clayton Moore, whose last address was Minneapolis, Minnesota; and John Hart who might live in the area of Los Angeles, California.

* * *

Descendants of Isaac & Catherine Scott Voke, Sarah Voke Fulton, or Elizabeth Voke Bailey who lived in Newfield, New York.

* * *

PAINTERS AGAIN

"This morning a brown Cadillac drove into our yard. My nephew told me they wanted to paint our barns.

"When I saw the out-of-state license and heard the driver's southern accent, I told them in no uncertain terms to get out at once. They did. Because of the number who are taken in by this racket, as I have read about in your column, I called the State Police. They had no complaints, but said they would be on the look-out for them.

"The painters claimed to have painted some barns about 4 miles away. I called the man they mentioned and he had actually had his roof painted, with them supplying the paint. I wished him luck when this rain is over!"

NO SUITS

"In March I bought two suits from Hong Kong tailors, who advertised in a local paper and were selling from a local motel. I paid for them and was told I would receive them in about thirty days.

"Late in April, they were back in town and, when I inquired about my suits, they told me the delay was due to the many orders they had received. They were back again in June, and again I paid them a visit, but this time they told me they were not the same organization that had sold me the suits.

"I'm sending you what information I have and will be grateful for anything you may be able to do about this situation."

Over a year ago there was a similar, or perhaps the same, outfit in Buffalo. A Better Business Bureau shopper ordered a sport jacket. He received it in four weeks as promised, but the sleeves were too short . . . the length was too short . . . it was too narrow across the chest and too tight in the armholes. The BBB notified the company in Hong Kong, at least twice, of the customer's dissatisfaction, but so far as we know the letters were never answered.

We felt that no useful purpose

Family Protection Pays



Agent Rod Guichard, upper right, of Randolph, N.Y. delivered claim checks totaling \$2072.65 to the Joseph Telaak family of Hamburg, N.Y. They were driving to town when colliding with a milk tank truck. All were treated at the hospital, Mr. Telaak spent six days there. Luckily they were not more seriously injured.

The Telaak family have carried North American accident protection since 1967. From their expressions it is easy to see they were thankful to have recovered from their injuries and to receive the personal services of Rod Guichard bringing them North American financial help.

OTHER CLAIMS PAID

A friend's name may be in this list.

Larry Sample, Albany, N.Y.	\$ 285.13	Ross Fuller, Sr., DeRuyter, N.Y.	\$ 989.56
Auto accident—inj. neck		Thrown by cow—broke arm	
James E. Hunt, Wellsville, N.Y.	329.48	Tilda Goodberlet, Rochester, N.Y.	1650.00
Auto accident—multi. injuries		Fell—broke hip	
Wendell Chamberlain, Belfast, N.Y.	272.84	David T. Fox, Canajoharie, N.Y.	833.56
Stepped on by cow—broke leg		Ladder collapsed—inj. back	
William Goodrich, Harpursville, N.Y.	342.84	Merle Hurley, Ontario, N.Y.	300.00
Kicked by cow—injured back		Iron bar fell—broke collarbone	
Donald D. Jaquish, Jr., Delevan, N.Y.	876.85	Mabel Schuelke, Brewerton, N.Y.	202.00
Fell on drags—injured arm		Ladder tipped over—broke toe	
Marshall Farnham, Cattaraugus, N.Y.	235.00	Lillian Guile, Naples, N.Y.	990.65
Casting fell—broke arm		Chair tipped over—inj. neck	
Frank Bowman, Jr., King Ferry, N.Y.	103.99	John T. Sloat, Florida, N.Y.	1126.43
Caught in pulley—injured hand		Fell down stairs—inj. head	
August Staehr, Cayuga, N.Y.	255.56	Ruth M. Woodworth, Lyndonville, N.Y.	476.90
Pulled into machine—inj. shoulder		Auto acc.—cut scalp, whiplash	
Elizabeth Peterson, Clymer, N.Y.	607.15	Hedwig Wallicki, Hartwick, N.Y.	989.20
Truck accident—inj. shoulder		Stepped off curb—broke ankle	
Edward Newell, Sherman, N.Y.	312.40	Lionel Pierce, Rensselaer Falls, N.Y.	822.92
Hit by nail—inj. eye		Knocked down by cow—head injuries	
Milton A. Roy, Horseheads, N.Y.	129.00	Dale M. Lowery, Hammond, N.Y.	461.90
Slipped, fell—inj. ribs		Pinned by cow—broke arm	
Clarence Yancey, Afton, N.Y.	2286.42	Vivian Varin, Schenectady, N.Y.	197.14
Crushed by cows—inj. back		Saw kicked back—inj. leg	
Andre A. Bedard, Jr., Mooers, N.Y.	326.31	Kermit Keyser, Schoharie, N.Y.	209.38
Hitching spreader—injured leg		Struck by board—broke thumb	
Flossie W. Brown, Cortland, N.Y.	222.53	Harold Wyckoff, Ovid, N.Y.	473.28
Tripped on chair—broke wrist		Hit by bale thrower—broke back	
Louis Donofrio, Stamford, N.Y.	900.93	Hazel N. Colegrove, Troupsburg, N.Y.	458.78
Bitten by dog—inj. hand, arm		Tripped over rug—broke arm	
Blanche Every, Bloomville, N.Y.	150.00	Mike Bocek, Sr., Savona, N.Y.	867.68
Horse jumped—inj. chest		Auto accident—inj. neck	
Harold Williams, Akron, N.Y.	1797.13	Joseph E. Cain, Aquebogue, L.I., N.Y.	508.40
Tractor accident—broke hip		Fell from ladder—broke ribs	
Ricky G. Johnson, Collins, N.Y.	354.61	Donald Beebe, Berkshire, N.Y.	1305.00
Auto accident—inj. wrist, chest		Fell in hole—broke leg	
Louis W. Scroger, Batavia, N.Y.	1809.29	Winslow Woodruff, Jr., Ludlowville, N.Y.	1122.13
Caught in P.T.O.—inj. leg		Unloading baled hay—broke back	
Pamela Wilcox, Frankfort, N.Y.	170.00	Carl O. Schindler, Lyons, N.Y.	111.42
Fell off gym set—broke shoulder		Tripped over cat—inj. knee	
Edward Hayes, Newport, N.Y.	154.28	Albert C. Ehman, Lyons, N.Y.	636.57
Horse fell—broke ankle		Fell from ladder—injured elbow	
Clarence Phillips, Henderson, N.Y.	306.42	John F. Gebel, North Java, N.Y.	275.34
Laying drain—broke toe		Jumped off spreader—inj. knee	
Harold Robbins, Sackets Harbor, N.Y.	599.72	Fannie B. Buckle, Penn Yan, N.Y.	301.43
Kicked by cow—injured head		Slipped and fell—broke wrist	
Harland L. Noltz, Lowville, N.Y.	697.61	David Allen, Granville Summit, Pa.	437.10
Fell from ladder—injured hip		Auto accident—multi. injuries	
Conrad Shumway, Jr., Lowville, N.Y.	893.71	William Clark, Jr., Branchville, N.J.	2542.87
Kicked by cow—injured neck		Caught in corn picker—injured hand	
Bernice A. Ingalls, Leicester, N.Y.	252.76	Armand Benoit, St. Albans, Vt.	356.41
Auto accident—inj. knee		Caught in corn unloader—broke finger	
Melvin Ginney, Morrisville, N.Y.	1250.00	Alexander Urgiel, Turner Falls, Mass.	1289.28
Repairing tractor wheel—inj. head		Rammed by bull—injured chest	

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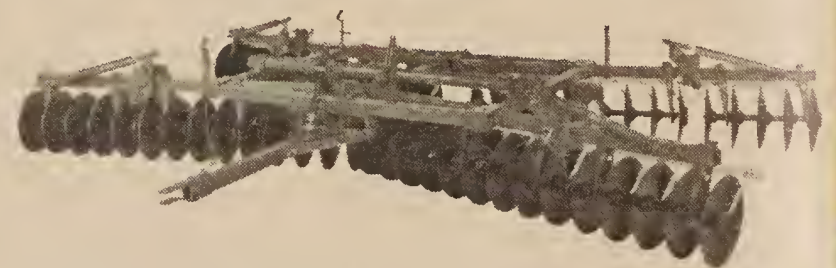
We call it our escape hatch. When you switch to a new Oliver plow, you leave trouble behind. Our giant trash space is 29½ inches high. And 30 inches measured between bottoms where the soil flows.

Escape No. 2: Non-stop plowing with automatic reset beams. You keep right on rolling in spite of rocks. Shown here is the spring automatic reset. It's growing in popularity because each bottom trips with the

same pressure no matter how many others are forced back at the same time. Or you may want our hydraulic automatic reset with its powerful yet oil-cushioned return action.

Other Oliver "escapes" include a choice of regular or on-land hitches, special coulters, jointers, bottoms. All to help you get completely away from plowing delays.

See your Oliver dealer. He'll help you escape your tillage problems.



Another way to escape from tillage hang-ups: Oliver's big new rigid-frame disk harrows—261, 262 and 263 series—clean-lined to shed trash, new lock-down wings.

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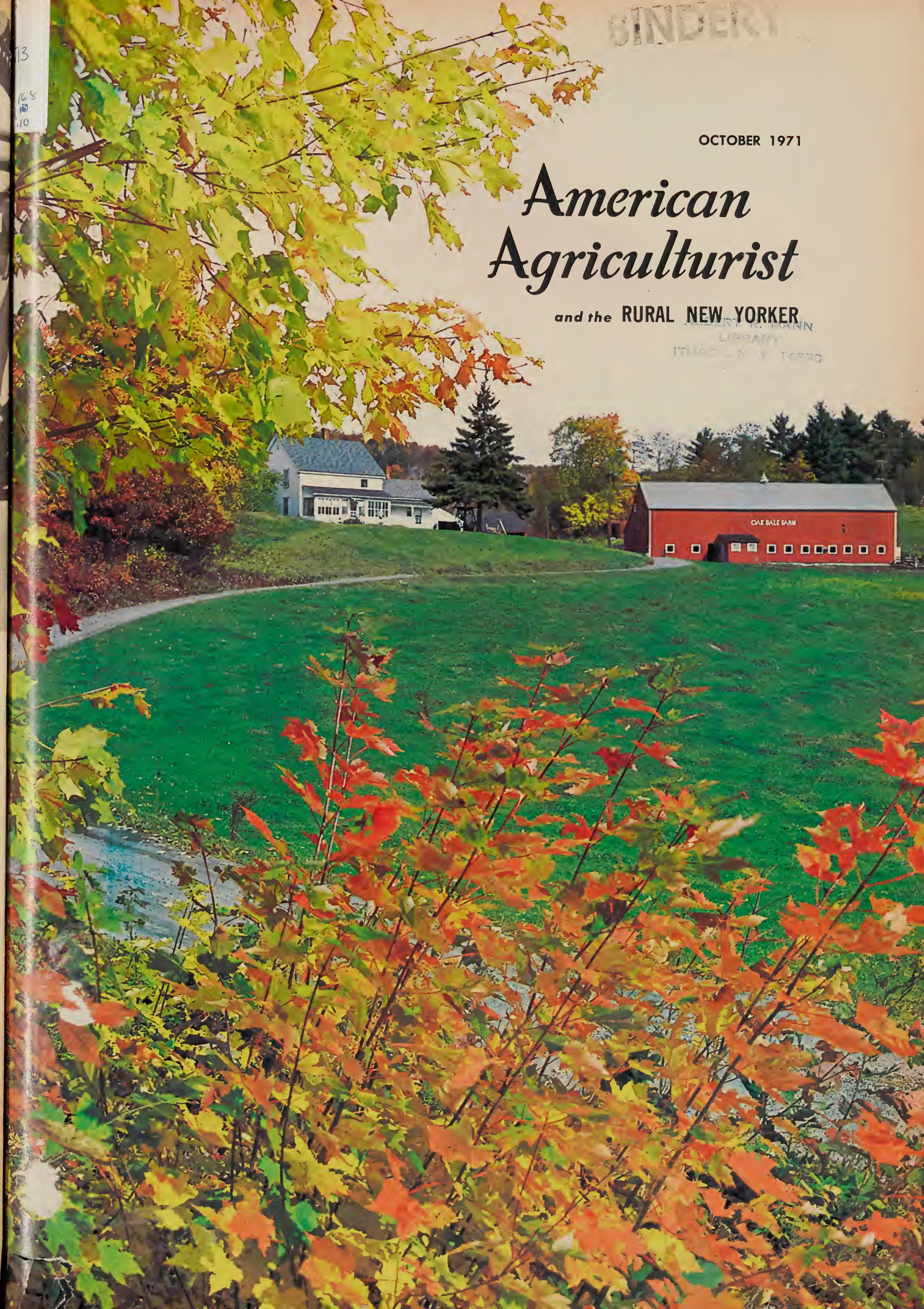
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OCTOBER 1971

American Agriculturist

and the **RURAL NEW YORKER**

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Left: SKI-DOO offers seven different series for the new season. These range from the Elan, with a 12 hp engine, through the Olympique, the Nordic, Valmont, Alpine, Skandic and the TNT, with five models ranging from 292 cc to a 775 with 55 hp.

ARCTIC CAT's all-new Cheeta joins the Panther, Puma and Lynx in the company's 1972 line. Engine options include 340, 399 and 440 cc's in the Cheeta and Puma and a 292 Lynx. Panther sizes range from 292 to 440 cc's.



Above: MOTO-SKI's new models range from the smaller-than-standard Cadet, with 247 cc engine and 15½" track, up through the Capri and Zephyr to the MS-18, with 18" track and 399 cc engine, and the Grand Prix for professional snowmobilers.



Left: SCORPION, INC. introduces eight models, with engine options ranging from 16 to 37.5 hp in the 277 to 440 cc classes, and in track sizes ranging from 15" to 18".

Right: JOHNSON MOTORS adds two new Challenger models to its Skee-Horse line. The Challenger 21 has a 399 cc engine; the second model, 437 cc. Two 1972 Rampage models sport 32 hp, 437 cc engines.



EVINRUDE MOTORS has 12 options, including a new deluxe series called the Trailblazer and a series of family models—the Norseman, three sizes of Skeeters and four Bobcats.



SNOWMOBILE PREVIEW FOR 1972



SNO-PRINCE, from Lionel, introduces 10 new models with engines ranging from 223 to 623 cc's. Newest in the series is the SST, with three new rigs ranging from 292 to 438 cc's. The company also offers junior, three XL and three GT models.

Left: RUPP announces 13 new models, including Rogues, Yankees, Americans and Nitros. They'll range from 295 to 650 cc ratings. All are twin-cylinder engines, redesigned for the 1972 introductions.



Left, above: MERCURY broadens its line with the 644 cc model for 1972. The company now offers horsepower ratings from 25 to 35 and cc ratings from 339 up to the new 644 Hurricane.

BOLENS announces six new models, including a 292 cc mini-sprint; four medium and wide track models, ranging from 292 to 433 cc's, plus the 440 SS sport model.



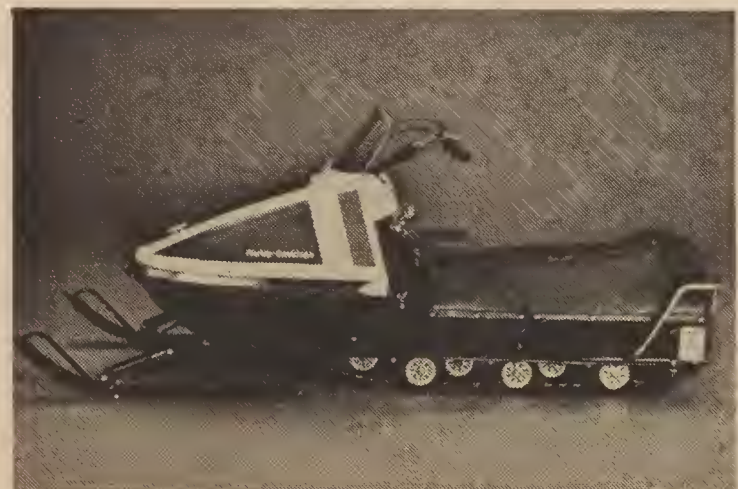
BOA-SKI's four models have eight engine options ranging from 223 to 493 cc's and are available in track widths from 14" to 18". They range from family models, featuring safety and comfort, to high performance racers.



POLARIS has four redesigned series—the Colts, Chargers, Mustangs and TX group. Mustangs offer the 398 cc with 30 hp rating and a 530 cc, 36 hp model.



will feature eight Ski-Daddler sleds. Size will range from 20 hp, 292 cc Mark IV 300 to the 40 hp, 634 cc Mark V-640. The machines feature deluxe consoles, slide-rail torsion-bar suspension, low-profile seat and a passenger hold-on strap.



HARLEY-DAVIDSON offers the Model Y, new for 1972. It has a 399 cc, twin-cylinder engine and an 18" track. The new entry has adjustable handlebars, similar to the company's motorcycles.

COLEMAN-SKIROULE's RTX series has a low profile—the lowest in the industry, says the manufacturer. Three models include the RTX-300, 293 cc; RTX-440 and the RTX-447, both with 436 cc engines.

SNO-JET, INC., announces four new series of snowmobiles for 1972, with nine power choices ranging from 292 to 433 cc's. They feature a low-profile cowl, offset headlight, new seat design and deep-profile double track.

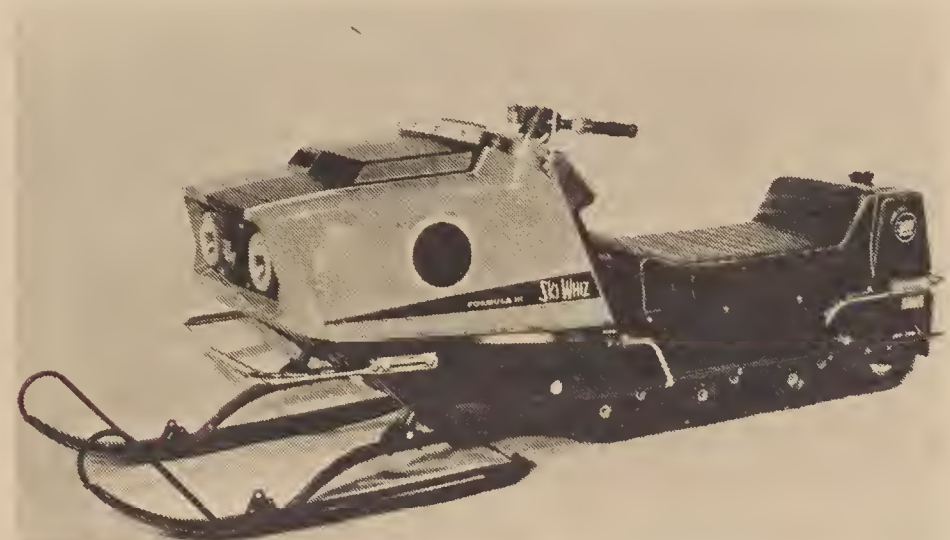


ALOUETTE offers custom performance kits as optional accessories in 1972, including rear-view mirrors, tach pods and hood ducts. There are five models, ranging from 292 to 437 cc's.

ARIENS COMPANY adds two new models to its line. Altogether, there are eight different machines, with engines from 277 to 437 cc's, in track widths of 15" and 19". The two models are tagged the 350 SX and 450 SX Super Sleds.



Below: **MASSEY-FERGUSON** is expanding its Ski Whiz line to seven models. Two new machines—the Formula III and Formula IV—have improved safety devices, including emergency cutoff buttons, rear side reflectors and crash pads. Ski Whiz models range from 18.5 to 37 hp.



CHAPARRAL combines a track length of 101" with track width of 15½" to 18" in four models, ranging in engine size from 250 to 650 cc.



YAMAHA introduces two-speed snowmobiles. The EW and SW-433B offer "quick-change" gears—high range for cross country, low range for hills. Seven models are available.



JOHN DEERE'S 500 snowmobile is one of the two new models introduced for 1972. The 500 has a 436 cc, twin-cylinder engine; the Model 400, a 339 cc engine. Both have 15" tracks.

WINTER SPORTS enthusiasts may feel a tinge of desire for freezing temps and the inevitable snow that will follow as they scan this 1972 snowmobile preview. There's no question but what snowmobiling has grown faster than any winter activity in a long time. Only six years ago, in fact, snowmobiling was but a fad. Since then, the new industry has chalked up \$8 billion in sales. Last year alone, a half-million new sleds hit the trails. That much growth that fast means every new owner must share the responsibility of doing all he can to promote safety, courtesy and proper use of snowmobiles, so as to avoid adverse public opinion legislation. We urge officials of the International Snowmobile Industry Association. They set these helpful pointers:

- Many people think the more noise a snowmobile makes, the more powerful it is; this is quite the contrary. Mufflers installed on the latest model snowmobiles will give more power and performance than a straight pipe. A muffler on a two-cylinder engine is just as important as a carburetor.
- Practice driving on a level field until you have mastered 1) the three basic riding positions—sitting, kneeling and standing; 2) turns and 3) weight shifting techniques. Then practice under tougher conditions. There is no fixed formula for turning, stopping or starting distances.
- Ignorance is no excuse for disobeying the law. And new laws governing snowmobiling are being passed each season. It's the snowmobiler's responsibility to learn and obey them.
- Use the "buddy system" on any trip. Even at a cruising speed of 30 mph, a half-hour drive can carry you 15 miles from your starting point.

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Harold Hawley Contributing Editor
Del R. Hall Advertising Manager
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American Agriculturist, Inc.

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OUR COVER

This is the Oak Dale Farm, located near Gill, Massachusetts.

Photo: Herbert Shumway.



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American Agriculturist, October, 1971

EDITORIALS

by GORDON CONKLIN



TURNABOUT

New York State, after years of being a mecca for relievers, finally discovered it was going bankrupt by offering sweeter welfare benefits than any other state of the Union. The legislature tried to require a one-year residency before allowing newcomers access to the welfare trough... but the courts would have none of it. Attempts to pay smaller welfare benefits Upstate, where living costs are lower than in New York City, met with a similar judicial no-no.

The judges aren't even sure it's legal to ask able-bodied welfare recipients to personally pick up their checks. By gum... talk about discrimination... I not only have to show up on payday to get my check, but I have to show up at work most other days as well!

As I thought of these court decisions... and of proposed federal legislation to establish a guaranteed family income... I envisioned a scene at a federal-order milk hearing in the year 2000. Testifying is a leader of one of the milk cooperatives, whose unfortunate middle-class members earn too much to be eligible for freeloading, but too little to live like the rich.

The hearing officer is speaking: "Now, Mr. Square, do I understand correctly that you are asking for a decrease of 10 percent in the Class I milk price for the coming year?"

"Yes, sir. Our membership is tired of being ineligible for rural development loans to construct sauna baths. Furthermore, with lower incomes, we could have all our dental bills paid... instead of being second-class citizens who have to pay our own."

"But, Mr. Square, you had a decrease of five percent just last year... aren't you being a bit unreasonable to request another 10 percent on the bottom of that?"

"Not at all! We think we're being extremely moderate in our demands. Do you realize that a 20-percent decrease would make us eligible for free snowmobiles through the Felt Needs Authority... for color television sets under the cost-sharing provisions of the Rural Recreation Program... and even horse-betting credit from the Operation Bootstraps Taxation Board?"

"Why," Mr. Square went on, "should others purchase the attractive non-essentials that they want with their money, and then force us to buy their necessities with our money? Surely, such discrimination is unjust!"

"We're only asking that our incomes be adjusted downward to the point where we can qualify for a full share in the wealth and progress of America... a 10-percent decrease in the Class I price is at least a step toward the attainment of that worthy objective!"

STEADY MARGIN

Time was when most northeastern fruit growers loved to gamble... not necessarily with cards or on horses... but rather with the roller-coaster prices of apples, cherries, grapes and other fruit. There was a day when living dangerously could be fun... buy a Cadillac from big profits one year, then not even be able to license it the next when rock-bottom fruit prices hit.

But times change, and the capital investments of fruit growers have soared to the point where predictable (and reasonably steady) margins have become vastly more important than was once the case. The 1970 season was a disaster for all too many processing-apple

American Agriculturist, October, 1971

growers... with thousands of bushels of apples left unharvested because of ruinously-low prices at harvest time.

One grower in Orleans County, New York, commented, "We had supply management in 1970, all right, but many growers didn't like it! It was administered by processors who picked and chose as to whose apples they would accept." This grower is a staunch Farm Bureau member, but went on to say, "Anyone can wave the flag for individual free enterprise, but in fruit marketing that just doesn't get the job done!"

His comments are echoed by some other Farm Bureau members, and they denote a shift in policy by that organization at both national and state levels. And so now the New York State Farm Bureau is actively promoting what is called "disciplined marketing" for processing apples... a semantic concession to the members who still wince a bit when they hear "supply management" mentioned.

But supply management is an important part of the proposed marketing order for processing apples in the Empire State... including provisions for a "reserve pool" of apples to be diverted from the market, as well as provisions for non-harvest of production deemed in surplus.

An Apple Utilization Advisory Board... composed of four growers, three processors, one retail marketer, and one member of the general public... would advise the Commissioner of Agriculture on implementation of the proposed order.

It appears to me that there is a growing feeling on the part of producers that they are willing to accept government enforcement of marketing orders, so long as representative growers have an important part in making major decisions. This change in attitude has partly been a result of grim necessity... the roller coaster of high and low commodity prices has all too often caused farmers to end up getting financially killed, rather than making a killing. A few dairymen, of course, point accusing fingers at the fruit growers for "deserting the principles of free enterprise"... conveniently overlooking the fact that the dairy industry is one of the most heavily regulated in the nation, and has benefited from federal and state milk marketing orders for many decades!

Hopefully, the day may soon come when a processing-apple grower can take a meaningful cash flow projection to his credit source... along with a balance sheet and operating statement for the previous year. More orderly marketing is badly needed in the apple industry... an objective already realized by cherry growers.

"SURPLUS" MILK

Dairy farmers generally in the Northeast are enjoying a period of relative prosperity as compared to some of those grim times during the middle 60's. Fortunately, milk production has not exploded upward in response to better prices... but the supply has edged upward. Although milk production has remained within manageable limits, the major long-run problem remains, however... a downward trend in per capita consumption of milk.

There are other long-run problems that continue to plague the dairy business. The mandated Class II price is fixed at a level high enough to discourage investment in manufacturing facilities... and at a level creating a blend price that encourages more production. Operating cooperatives are stuck with much of the

Class II milk, even though they lose money handling it... and non-members of those co-ops get a free ride while the operating co-ops balance the market.

The same free riders set up a loud hue and cry whenever the operating co-ops even whisper that Class II milk prices may be unrealistically high. It's tough enough to lose money clearing the market of manufacturing milk, but it's doubly tough to get beat on for even raising questions about the Mickey Mouse economics and political motivations involved in setting the price!

Supply management is an attractive alternative in theory, but it has its drawbacks in practice. The Puget Sound federal order has had a Class I Base Plan in operation for several years, yet the percentage of Class I utilization in the market is far below that in any order in the Northeast!

After ruminating about all the problems, the stickler remains... how can dairymen increase income? Profit, which makes the world go 'round, is a result of units sold, times price per unit, less costs. Price has always been the most popular item for attention by dairymen and their organizations... yet reducing costs has probably over the long run contributed most to higher net returns to individual farmers.

Efforts to strengthen the demand for milk and dairy products is an obvious need in the light of sagging consumption, and some dairymen have long contributed to the American Dairy Association, and other organizations, for product promotion and development. USDA research clearly indicates that milk consumption can be increased by effective product promotion. The free riders have always been a source of friction in this effort, too, especially in the big New York-New Jersey federal order market.

New York State farm leaders are involved in an effort to include all dairymen in the financial support of milk promotion and product-development efforts. Each dairyman will have an opportunity to vote on the proposed dairy promotion order, as did the state's cherry growers and apple producers who have approved similar programs for their commodities.

The proposal calls for an assessment not to exceed five cents per hundredweight, and approval by at least 51 percent of producers is required. An advisory board of producers would advise and assist in the administration of the proposed order.

For the long-run health of the northeastern dairy industry, effective product promotion and development are "musts." And to really be effective... financially and ethically... the contribution of every dairyman is required!

See page 22 for more information about the proposed New York State dairy promotion order.

ALWAYS CHANGE

Two friends of agriculture have been involved in major professional changes during 1971. Leland Merrill resigned as dean of the College of Agriculture and Environmental Science at Rutgers... and Charles Palm announced that he will end his deanship of the New York State College of Agriculture and Life Sciences on June 30, 1972.

First off, I'd like to join a host of agricultural people who extend gratitude for the efforts of both these dedicated men. Each has areas of special interest which he has long wanted to pursue... and the lot of a college administrator has not been an especially happy one in recent years.

Our society is one which brings enormous pressures to bear on authority at all levels... yet fortunately also affluent enough so that a man can afford to develop several careers during a working lifetime. It takes courage to step down from positions of high-level authority before retirement age, but it offers the potential of more abundant living, and even greater professional satisfaction.

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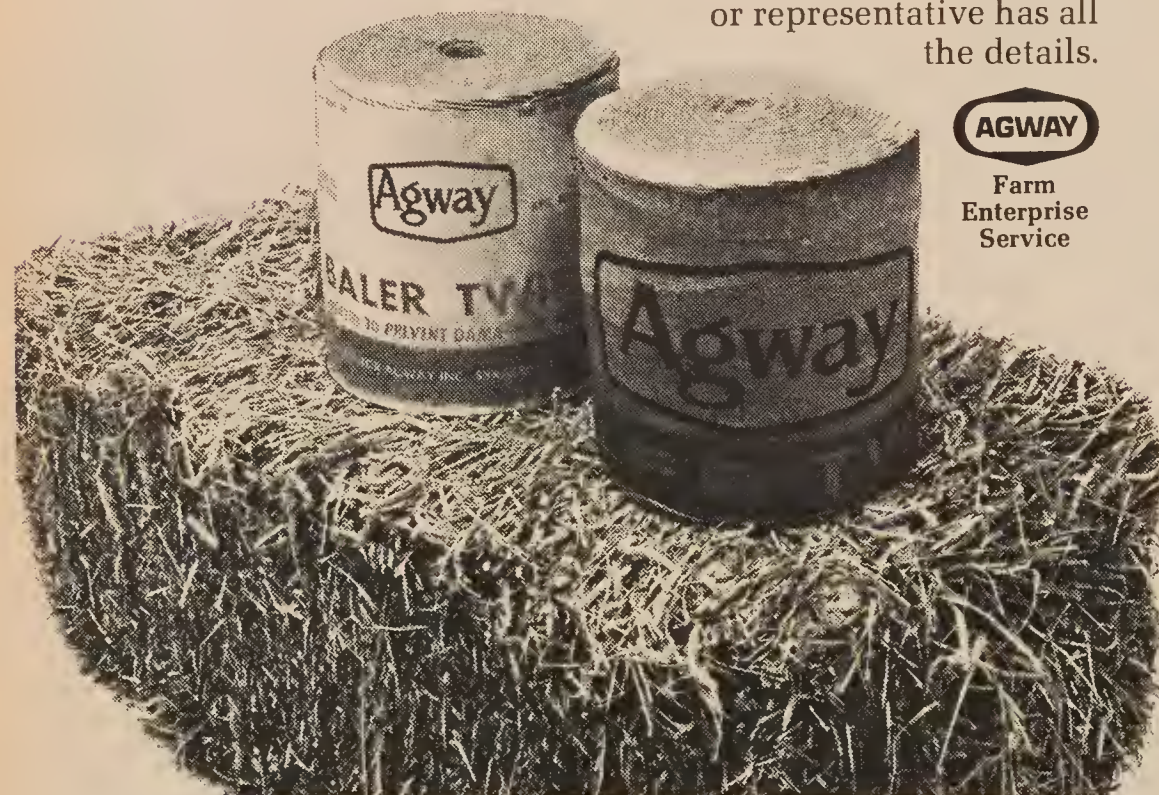
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POMONA WINNERS CHIFFON CAKE CONTEST

Each Grange County in New York State participated in this year's Chiffon Cake Contest. Here are names of the 53 winners who will compete in the state finals at Lake Placid on October 25. Watch for the story of the state winners and their prizes in our December issue.

COUNTY WINNERS

COUNTY	GRANGE	WINNER
Albany	Hiawatha	Mrs. Byran Louds
Allegany	Canaseraga	Miss Carolyn Earle
Broome	Sherwood Valley	Mrs. Ethel Blanchard
Cattaraugus	Monsfield	Mrs. Winifred Lance
Cayuga	Sherwood	Mrs. Roger Barnt
Chautauqua	Frewsburg	Mrs. Raymond Wiltzie
Chemung	Veteran	Mrs. Jean Landmesser
Chenango	Smyrna	Mrs. Galen Barnes
Clinton	West Chazy	Mrs. M. Adelaide Penfield
Columbia	Livingston Manor	Mrs. Herman Osterlah
Cartland	Albright	Mrs. Norris Burnham
Delaware	Bloomville	Mrs. Gladys Burdick
Dutchess	Pine Plains	Mrs. Waverly Barthalf
Erie	Evans	Mrs. Rose Halland
Essex	Wadhams	Mrs. Harold Pierce
Franklin	Brushton	Mrs. Leonard Van Ess, Jr.
Fulton	Perthshire	Mrs. Elizabeth Bawers
Genesee	North Alexander	Mrs. John Meyers
Greene	Jewett	Mrs. Violet Osborn
Herkimer	East Schuyler	Mrs. Sharon Upsan
Jefferson	Star	Miss Esther Lu Mereand
Lewis	Beaver Falls	Mrs. Embert Maralf
Livingston	Ossian	Mrs. Dorothy Knapp
Madison	Nelson	Mrs. B. Eugene Ungleich
Monroe	Haneaye Falls	Miss Gladys Lyday
Montgomery	Otsuquo	Mrs. Ada Casler
Niagara	Hartland	Miss Edna Munzel
Oneida	South Trenton	Mrs. Lea Garrett
Orange-Rckind	Neversink	Miss Phyllis Glover
Onandaga	Baldwinsville	Mrs. Paul Huntington
Ontario	Canandaigua	Mrs. Ray Brackelbank
Orleans	Barre	Mrs. Alvin Peglaw
Oswego	Sandy Creek	Mrs. Oscar Grassman
Otsego	Roseboom	Mrs. Warren Rathbun
Putnam-Wstchr	Putnam Valley	Mrs. Edwina Marrin
Rensselaer	Brunswick	Mrs. Ethel Krogh
Saratoga	Milton	Mrs. Theran Pickett
Schenectady	Niskayuna	Mrs. Myrtle Clute
Schoharie	Rock District	Mrs. Irene Tillapaugh
Schuyler	Townsend	Mrs. Fred Boyce
Seneca	Seneca	Mrs. Margaret Shuster
Steuben	Hedgesville	Mrs. Isabel Bautan
St. Lawrence	Morley	Mrs. Lena Williams
Suffolk-Nassau	Sound Avenue	Mrs. Madeline Tuthill
Sullivan	Monticella	Mrs. Anna Coy
Tioga	Spencer	Mrs. Andrew Ojala
Tampkins	Enfield Valley	Mrs. Susan Achilles
Ulster	Huguenat	Mrs. John Schreiber
Warren	Mohican	Mrs. Bernadette O'Connar
Washington	Whitehall	Mrs. Hazel Ryder
Wayne	Rose	Miss Lois Steifler
Wyoming	Varysburg	Mrs. Robert West
Yates	Crystal Valley	Mrs. Lyman Pierce

HERE'S THE PLACE TO SEE FORD BLUE

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Florida Implement Co., Inc.
ARCADE
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BATAVIA
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BEDFORD HILLS
H. A. Stein Tractor & Equipment
BERGEN
Clark & Riter Ford Tractor & Equipment
CLARENCE CENTER
Yoder Brothers, Inc.
CLINTON
Clinton Tractor & Implement Co.
CORTLAND
Cain's Tractor & Implement Inc.
CROPSVILLE
Brown's Garage
DEPAUVILLE-WATERTOWN
Carl C. Fry, Inc.
DUNDEE
Dundee Motors, Inc.
EAST AVON
Clark & Riter Ford Tractor & Equipment
EDEN
Nobbs Tractor & Implement Corp.
ELLENBURG DEPOT
Nephew's Garage
ELMIRA
E & O Ford Tractor Sales, Inc.
FAIRPORT
Jennings Ford Tractor, Inc.
FILLMORE
Ricketts Farm Supply, Inc.
GLENS FALLS
West Mountain Sales, Inc.
GOVERNOR
Dodd's Motor Corp.
GRANDVILLE
Moore's Garage
HICKSVILLE
Malvese Tractor & Implement Co.
HIGHLAND
W. E. Haviland, Inc.
JAMESVILLE
Craner Tractor & Implement Co.
LATHAM
Bebout Ford Tractor, Inc.
LISBON-OGDENBURG
Lyle H. Flack, Inc.
LITTLE VALLEY
Armes Tractor & Implement Corp.
LIVINGSTON MANOR
Liberty Tractor Co., Inc.
LOCKPORT
Niagara Ford Tractor, Inc.
LYONS FALLS
Cogar Equipment Corp.
MALONE
Morey Ford Tractor Sales & Service
MATTITUCK
Island Ford Tractor Sales, Inc.
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MONTGOMERY
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Iroquois Ford Tractor Sales, Inc.
PALATINE BRIDGE
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PALMYRA
Newark Tractor, Inc.
PANAMA
Whitney & Wood
PENN YAN
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PERU
Peru Farm Center, Inc.
PINE PLAINS
Pine Plains Ford Tractor, Inc.
PORT JERVIS
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PORTVILLE
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SYRACUSE
DeVeau Ford Tractor, Inc.
WEEDSPORT
DeVeau Ford Tractor, Inc.
WOODHULL
Symond's Ford Service

RECORDS ON IRRIGATION

New Jersey growers who have been using water for irrigation purposes need to have a record of the amount of water used during 1971.

The State Department of Environmental Protection will be checking this fall or early winter to determine how much water was used during the growing season. If a grower is to have his permit renewed, the Department is going to need records. Water permits are required on any water originating from underground sources.

If one has daily records, it will be relatively easy to meet the State requirements. If no daily records have been kept, one needs to check back over the days that irrigating equipment was used and have some satisfactory estimate on the daily use.

FRUIT MEETINGS MERGE

Three important horticultural societies are merging their annual meetings this winter. The Horticultural Societies of New Jersey, Maryland and Virginia are holding a joint meeting at Roanoke, Virginia on January 16-19.

The close relationship of these three states in production and marketing has led to the joint conference.

The merger will not only bring together growers over a much wider area, but will enable machinery manufacturers and suppliers to stage a much larger exhibit than when attempting to cover three separate meetings.

—by Amos Kirby

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1. You're sure of the price you'll pay.
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5. You can start depreciation for tax purposes this year, if desired.

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Reserve Grand Champion — Elmstone Debonair Beauty J 75, George and Kolin Keyser, Sprakers.

Junior Champion — Galney Rose Ann Kon, Judith DeLavernne, Dansville.

Bulls:

Senior Champion — Shayron-Ayr

Lady Flashy Spot, Sharon Ann Baldwin, Mendon.

Junior and Grand Champion — Haynes Farm Flashy Paul, Robert M., Jr. and Adelbert H. Haynes, Tully.

Reserve Grand Champion — Mt. Home Pearl's Freddie, Judith DeLavernne, Dansville.

BROWN SWISS

Females:

Senior and Grand Champion — Vine Valley Paul Lu Ann, Leon Button, Rushville.

Reserve Grand Champion — Louayne Viscount Legend, Wayne Sliker, Flemington, N.J.

Junior Champion — Mount Pleasant N C Prilly, J. Edward Stouff and Ronald Heffner, Flemington, N.J.

Bulls:

Senior and Grand Champion — Vine Valley Chip's Pedro, Leon Button, Rushville.

Junior and Reserve Grand Champion — My-T-Fine Touchdown, Peter Klotzbach, Jr. and Sons, Corfu.

GUERNSEY

Females:

Senior and Grand Champion — Rosewood Am Shirley, Henry Venier, LaFayette

Reserve Grand Champion — Tannery Hill C. Zerobia, Henry Venier, LaFayette.

Junior Champion — Smithfield Dora Sue, Coon Brothers, Amenia.

Bulls:

Senior and Grand Champion — High Meadows Dari Zoro, Henry Venier, LaFayette.

Junior and Reserve Grand Champion — High Meadows Jewell's Pride, Henry Venier, LaFayette.

HOLSTEIN

Females:

Senior and Grand Champion — Ken-Ray Citation Ruby-Twin, Kenneth and Raymond Vail, LaGrangeville.

Reserve Grand Champion — C Bruffo Empress Citation, Charles Hapeman and Ronald Miller, Red Hook.

Junior Champion — Oakwood-Acres Chief Ernie, Peter Coyne, Avon.

Bulls:

Senior and Grand Champion — Homestead Farm Maple Echo, Francis Gomez, Lakeville, Conn.

Reserve Grand Champion — Blossom Acres Crown Prince, James Brester and Paul Allord, Jewett City, Conn.

Junior Champion — Hamlet Seeley Gene Marquis, Frederick Nagel and Richard James, Holcomb.

JERSEY

Females:

Senior and Grand Champion — B Sleeper Crowning Value, Henry Uihlein, Lake Placid Club.

Reserve Grand Champion — Sleeper Etta Glow, Henry Uihlein, Lake Placid Club.

Junior Champion — Parkview Basil Dicky Violet, David Staring, Lowville.

Bulls:

Senior and Grand Champion — Brown's Masterman Jester, Henry Uihlein, Lake Placid Club.

Junior and Reserve Grand Champion — Gareth Carom Records, Henry Uihlein, Lake Placid Club.

MILKING SHORTHORN

Females:

Senior and Grand Champion — Wilder Farm Dairy Queen, J. M. and H. M. White, Marathon.

Reserve Grand Champion — Homestead Bell 3rd, Sharlene Leibeck, Churchville.

Junior Champion — White's Laurel Rose, J. M. and H. M. White, Marathon.

Bulls:

Senior and Grand Champion — White's Scarlet Duke, J. M. and H. M. White, Marathon.

Junior and Reserve Grand Champion — Hillholm Matchless Price, Susan Vaadi, LaFargeville.

ABERDEEN — ANGUS

Females:

Senior Champion — Ideal's Jingo 49 Queen 2, Bippert's Farms, Elma.

Junior and Grand Champion — Georgina of Vallemere 44, Mr. and Mrs. Sayre MacLeod, Phelps.

Reserve Grand Champion — Marshall Barbaramere 4470, Sir William Farm, Hillsdale.

Bulls:

Senior and Reserve Grand Champion — Willabar Gay Gordon 79A, Willow Lane Farm, West Berne.

Junior and Grand Champion —

American Agriculturist, October, 1971

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CHAROLAIS

Females:

Senior Champion — Forest Farm Miss Lancer 11, Karl Bayha, Mahopac.

Junior and Grand Champion — Forest Farm Miss Uranium 218, Karl Bayha, Mahopac.

Reserve Grand Champion — Linden Aiglette 8, Linden Farms, La-Grangeville.

Bulls:

Senior and Grand Champion — Sir Eberhard 270B, Frank Eberhard Farm, Poughkeepsie.

Reserve Grand Champion — Forest Farm Ali Baba, Karl Bayha, Mahopac.

Junior Champion — HF058 Aquarius, Robert and Martha Hazard, Tully.

HEREFORD

Females:

Senior Champion — B F Lady Onward 36, ABC Ranch, Canisteo.

Grand Champion — Helen of Kiyi-wana, Kiyiwana Farm, Stormville.

Reserve Grand Champion — W H Modern Beth, Windy Hill Farm, Phelps.

Junior Champion — L S Margo Victor 1-22, Windy Hill Farm, Phelps.

Bulls:

Senior Champion — J C Predominant 1, Jen Car Farm, Monkton, Md.

Junior and Grand Champion — L S Beau Victor 1-24, Windy Hill Farm, Phelps.

Reserve Grand Champion — Kiyi-wana/New Trend, Kiyiwana Farm, Stormville.

SHORTHORN

Females:

Senior Champion — Hillsway Blossom 14th, Walter Millard, Ithaca.

Junior and Grand Champion — Kinkeri Priceless Secret, T. H. Snethen, Dewittville.

Reserve Grand Champion — Farnley Hill Missie 13, Windholm Farm, Orange, Va.

Bulls:

Senior and Grand Champion — Rothney Braw Bob, T. H. Snethen, Dewittville.

Reserve Grand Champion — Bellevue Chief Consort, Windholm Farm, Orange, Va.

Junior Champion — B B Marshal 09, T. H. Snethen, Dewittville.

STEERS

Exhibitors of champion steers in the various breeds were:

Angus (also Grand Champion of all breeds in Open Steer Show) — John Alan Yasso, Leicester.

Charolais — Cindy Wellman, Pavilion.

Hereford — David Hall, Naples.

Shorthorn — Tim Spittal, Marion.

SWINE

Champion ribbons in the swine breeds were awarded as follows:

Berkshire — Grand Champion boar, Frank Wiley, Franlee Farms, Victor; Grand Champion sow, Dennis Grumbine, Fairview Farms, Myerstown, Pa.

Chester White — Grand Champion boar, Fred Olmstead and Family, West Bloomfield; Grand Champion sow, Dennis Grumbine, Myerstown, Pa.

Duroc — Grand Champion boar, Gary Gordon, Scipio Center; Grand Champion sow, Calvin H. Lazarus and Sons, Busy Acre Farms, Whitehall, Pa.

Hampshire — Grand Champion boar, Raymond Hawk, Spookwoods Farms, Port Byron; Grand Champion sow, Terry Bennecoff and Son, Kutztown, Pa.

Poland China — Grand Champion boar and Grand Champion sow, Clair Hartman, Gratz, Pa.

Yorkshire — Grand Champion boar, Calvin Lazarus and Sons, Whitehall, Pa.; Grand Champion sow, Park

Thomas, Par Kay Farms, Beavertown, Pa.

Supreme Champion boar (Yorkshire) and Supreme Champion sow (Duroc) of all breeds, Calvin Lazarus and Sons, Whitehall, Pa.

Champion barrow — Park Thomas, Beavertown, Pa.

SHEEP

Exhibitors of champion rams in the various breeds were:

Cheviot — Donna Cook, Trumansburg; Columbia — Clyde Martin, Mt. Morris; Corriedale — Jack Baird, Spencerport; Dorset — Kenneth Moore and Sons, Nichols; Hampshire — Donald Cook, Trumansburg; Oxford — Glenn Botsford, Scipio Center; Rambouillet — Kenneth Moore, Nichols; Shropshire — Kenneth Moore, Nichols; Southdown —

Almon Huff and Son, Bolton, Mass.; Suffolk — Robert and John Whyte, Wrentham, Mass.; Tunis — Rita Ann Cook, Trumansburg.

Exhibitors of champion ewes in the various breeds were:

Cheviot — Donna Cook, Trumansburg; Columbia — Joseph Lawson, Pavilion; Corriedale — Jack Baird, Spencerport; Dorset — Marcus Thompson, Chepachet, R. I.; Hampshire — Gayfield Manor, Frederick, Md.; Oxford — Frederick Hillman, Sr. and Marie Balzer, Newark Valley; Rambouillet — Kenneth Moore, Nichols; Shropshire — Kenneth Moore, Nichols; Southdown — G. Paul Lynch, Sykesville, Md.; Suffolk — Joseph Lawson, Pavilion; Tunis — Colleen Fitzpatrick, Wayland.

A young partnership

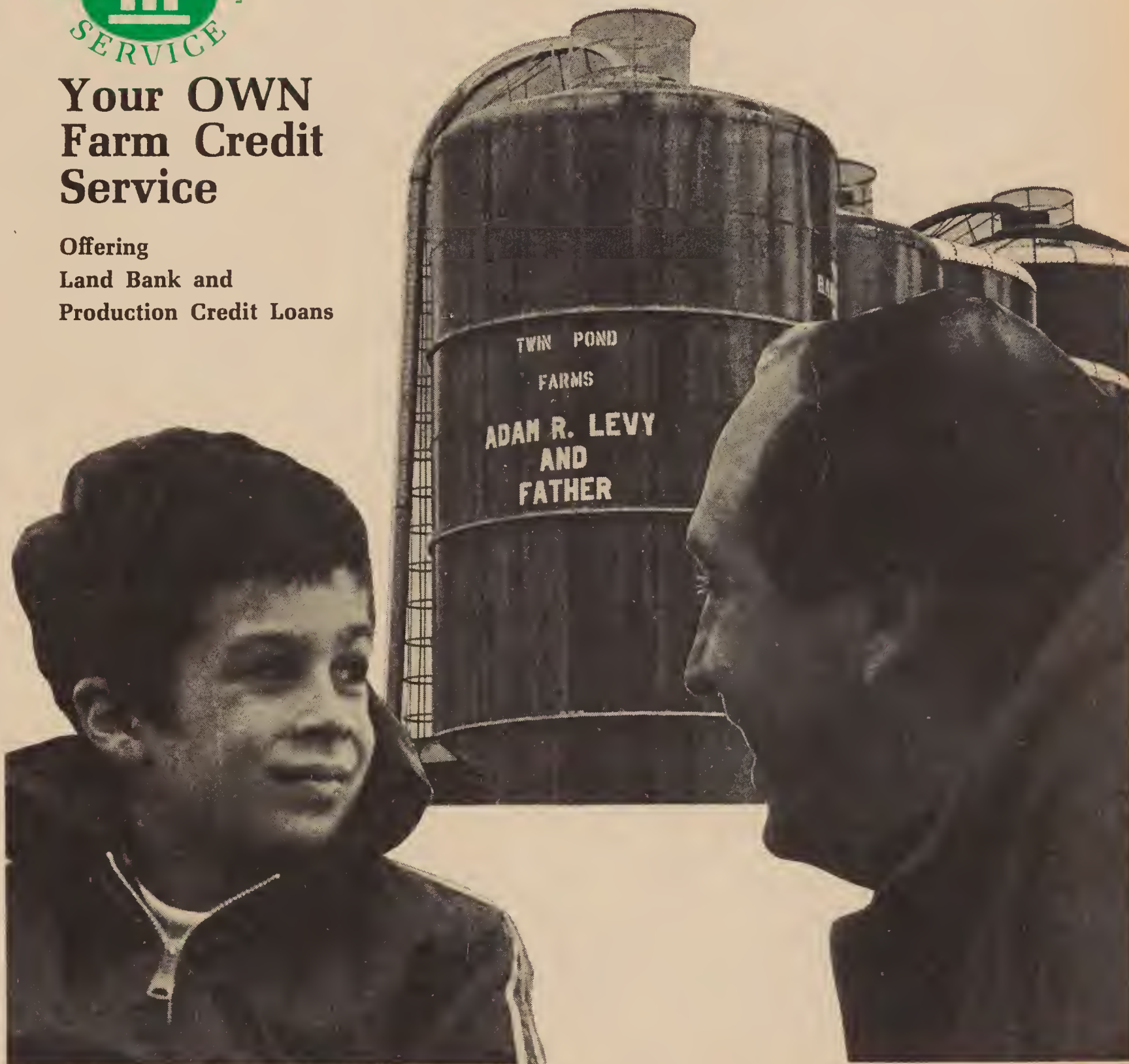
When it's time to transfer this farm from one generation to the next, you can be sure Farm Credit Service will be helping out. Advice on planning, help on corporation programming, assistance on partnership arrangements . . . these are only a few of the extras you can count on from your Farm Credit representative. Successful farmers know they can depend on us for advice and help in any farm-business situation. And so can you, at any age.

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NEED FOR MILK PROMOTION is dramatized in Puget Sound federal milk order area, where Class I usage has been below the level of the previous year in 11 of the past 12 months. Growing supplies there have continued to press heavily on the milk price, even as demand has softened.

Nationally, only half of the milk produced goes to fluid use.

SOUTHERN CORN LEAF BLIGHT showed up in practically all corn-growing areas in 1971, but its severity has been lower than in 1970. Look for big corn crop predictions to hold up.

Sorghum crop is also a whopper, likely to be up by 30 percent above 1970. All in all, a record crop year is in prospect ... barley, wheat, rye, oats, and soybeans are all expected to set new national yield-per-acre records.

INVESTMENT TAX CREDIT will stimulate the purchase of equipment by farmers. President asked for a 10 percent tax credit, retroactive to August 15, but some key political leaders want it retroactive to an even earlier date, maybe April.

PRICE-FREEZE regulations exempt raw farm products, making higher at-farm prices a possibility. Patronage dividends of cooperatives are not affected by the freeze.

New economic policy will probably last long after 90 days, and may mark the beginning of a new era in government's relation to the economy.

SLOW MOVING VEHICLE emblem is now required on all farm vehicles traveling less than 25 miles per hour, and operated on public roads by employees. Considerable confusion about the regulation existed at time of August 27 deadline, but word now is that SMV emblem is required.

FIRE WALL at Max Brender's poultry farm in Sullivan County, New York, paid for itself by limiting major fire to one wing (44 x 450 feet) of multi-wing laying house.

LEASE OR BUY? This question often occurs to farmers and agribusinessmen in connection with capital assets. Cornell farm management specialists have devised a computerized approach to analyzing which route is best for the situation.

New York State residents should check details of participation with their county agent ... others may write directly to: Dept. of Agr. Economics, Warren Hall, Cornell University, Ithaca, New York 14850.

FEEDING CALVES once a day is a practice that will save labor and provide greater flexibility in timing the job. Research indicates calves perform as well when fed once a day as compared to feeding more often.

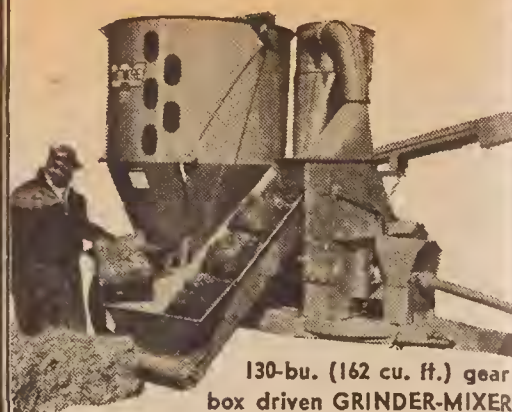
HIRING YOUR CHILDREN for farm work can save tax dollars. Wages are deductible as farm business expense ... if the child does not earn more than \$1,700, he files no tax return ... and you can claim him as a dependent if you provide over one-half of his support.

HOT WEATHER sometimes tempts poultrymen with windowless houses to open up ventilation slots too wide. Adequate ventilation in a forced-exhaust house is dependent on a low inside air pressure compared to outside ... opening slots wide equalizes pressure and creates areas of no ventilation.

GYPSY MOTH has been identified for the first time in these New York counties: Schuyler, Ontario, Chemung, Oswego, Seneca; Monroe, Steuben and Livingston. This tree defoliator now poses serious threat to woodlands over most of the Northeast.

OCTOBER is good month to apply needed lime ... assuming it doesn't rain in '71 like it did last year over much of the Northeast.

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GRAIN or ROUGHAGE, green, wet or dried makes no difference for the Wetmore.

Patented GEAR BOX DRIVE frees you from frustration of bothersome belt slippage.

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American Agriculturist, October, 1971



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Compare us to whatever else you've been buying. Our 98 hp. is right at the top of the class in power. And in fuel economy. Official tests prove it.

Turbocharging? The Oliver's got it. But not most others in this power class. They save turbocharging for their bigger and more expensive models.

Price per horsepower? Add it up

the way you actually buy the tractor you intend to live with. Our 1855 lets you have more of the things that get more work done. A little easier.

Things like Hydraul-Shift. With it, we avoid the power loss that's typical of infinite-speed transmissions. Yet we don't hold you down to 8 forward speeds.

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you just powershift up to overdrive for 20% more speed. When you hit that tough spot, you just drop down to underdrive for 20% more pull. Smooth. Sure. Efficient.

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PERRY...Folk & Kelly

SHERBURNE...Chenango Farm Supply

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WATERVILLE...P. N. Lewis Co.

VERMONT

FERRISBURG...Devines Sales & Service

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Doc Mettler Comments on:

WELCOME WINTER

SOME people never enjoy Indian Summer because they look at the beautiful leaves and the blue sky, feel the warm sun . . . and worry because a cold rain can change it all overnight! People who do enjoy it are either prepared for the cold rain so they have nothing to worry about, or they just aren't the worrying type. Most horse owners in the North-

east are in a somewhat similar situation right now in regard to disease in their horses. They know that vaccination can prevent tetanus, influenza, Eastern and Western equine encephalomyelitis. Other diseases, such as the dreaded equine infectious anemia, can be prevented by testing out reactors . . . or, as in parasitic disease, can be treated.

The owner who does not want to worry does these things to prevent disease; others are either the type that enjoys worrying or doesn't worry about anything.

Changes

Since July, however, the situation has been rapidly changing. A new disease has entered the picture and, like the cold fall rains, we know it will strike sooner or later. The person who does want to prevent this disease has done a lot of worrying because he has not been sure he could have his horses immunized against this disease, Venezuelan equine encephalomyelitis.

If by now, we have had killing frosts and the disease has not appeared in the Northeast, we are comparatively safe until spring. Or, even

if it has appeared, it won't spread until spring.

There has been so much in the papers about Venezuelan equine encephalomyelitis (VEE) that I will not spend a lot of time describing it, but would rather discuss what should be done between now and spring.

For those of you who have not read of the symptoms, VEE is a virus disease of equines and man, apparently spread by mosquitoes and other biting or sucking insects. In horses (and mules, donkeys and zebras) the disease affects the central nervous system, causing high fever, blindness, loss of appetite and dullness. The gait can be affected, the horse may "drift," stand cross-legged, or circle.

Signs of the disease may appear three to ten days after infection. It will last from hours to days, and may kill 70-80 percent of the affected horses. Only a laboratory test can make a positive diagnosis.

This brings out the reason why last year you were asked to write to your legislators to encourage them to enlarge the diagnostic laboratory facilities in New York State. Some money was appropriated, but much more is needed to make it possible to quickly diagnose VEE and other diseases we are threatened with . . . such as African swine fever, African horse sickness, etc. To date, even the facilities for which money was appropriated have not been completed.

In the human, VEE is a mild respiratory disease with flu-like symptoms. A friend of mine returned from a trip a year ago with flu symptoms he said were like those he had observed in some South American people. Down there, they referred to it as "donkey fever."

When he told me that it was supposed to have been caused by the bite of a mosquito that had bitten a horse that had encephalomyelitis, I told him he was all mixed up. Had I known how correct he was, I would have been more concerned!

Disease Spread

I cannot find in the literature about the disease whether or not it is known if a human can spread it to a horse or another human via a mosquito (remember it does go horse-mosquito-human) . . . but if this is possible, simply quarantining horses is not enough. People traveling from infected to non-infected areas could, in this case, carry the disease.

You may recall that in the Eastern and Western forms of equine encephalomyelitis, which we know more about, the disease cannot spread from horse to mosquito to horse, horse to mosquito to man, or man to mosquito to horse, but must go from infected bird to mosquito to man or horse. The rate at which VEE spreads would suggest that the disease does not rely on birds as a carrier. I do not know if birds are carriers of VEE. If they are, they too could add to its spread, especially at migration time.

So what are we going to do between now and spring to be able to not worry about VEE? Recently I received a mailing that went to all veterinarians from a veterinary supply house announcing a vaccine

(Continued on page 15)

American Agriculturist, October, 1971

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For 1972, DeKalb is giving you many reasons to order more of America's favorite hybrids. The big one is performance, result of the most advanced seed research in the business. Another is the 80,000 kernel unit. Then, there's our unique incentive plan and much more.

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Big eared, tough stalked. Looks and performs like XL-22 but consistently 2-3% drier at harvest.

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Food For The Spirit



by Robert L. Clingan

THE CENTRALITY OF MERCY

Both the Old Testament of our Bible and the New affirm three areas of life, or qualities of living, that parallel each other. In Micah 6, in final settling of a court proceeding in which God has charged Israel, the verdict is, "What does the Lord require of you but to do justly, love mercy, and walk humbly with thy God." In Matthew 23, Jesus challenges the established religious leadership of His day by saying that they tithed dill, mint and cumin, but neglected the more important matters of the law . . . justice, mercy, good faith.

In each of these triads of spiritual living, the center of virtue is mercy. It was William Blake, the half-mad English poet, who wrote: "To Mercy, Pity, Peace and Love All Pray in their distress; And to these virtues of delight Return their thankfulness." For William Blake, mercy became the incarnation of God.

Mercy is something that cannot be legislated. True mercy is genuine, deeply compassionate, the

characteristic of one who learns to identify with another. The merciful person illustrates the Biblical injunction to laugh with those who laugh and weep with those who weep. Mercy has to do more than flex its muscles, it must show its feeling.

This quality of mercy the Apostle Paul teaches is the redeeming quality of the good we do. In his great chapter on love, I Corinthians 13, he says, "Though I give my body to be burned and all I have to feed the poor and have not love, it profiteth me nothing."

The Old Testament statement of this triad of living does say that we do justly . . . but we have to love mercy. Mercy without love is nothing . . . it is not even mercy.

The late Dr. Frank Laubach, who taught so many adult illiterates to read and developed the principle of "each one teach one," shortly before his death wrote a short book that attracted a great deal of attention. The title of the book was, "The World is Learning Compassion." I am glad this great apostle of compassion in the modern world believed that the world was learning the meaning of mercy. Let us hope it learns it in time!

WAIT OF EXPERIENCE

After an hour's dreary wait
To get to keep my doctor's date,
I really feel that I can claim
To know how patients got their name.

— Donna Evleth

FFA STAR AWARDS

The FFA Star American Farmer in the North Atlantic Region this year is Dennis Carlberg, a 21-year-old dairy farmer from Frewsburg, New York. The young dairyman is part of a father-son partnership which maintains a herd of 68 Holsteins.

Named Regional Star Agribusinessman for 1971 was Lloyd Wenger, 20, of Myerstown, Pennsylvania, whose 60-acre farming operation is only a sideline . . . he's one of the top salesmen of agricultural machinery in the Keystone State.

Carlberg and Wenger will receive their titles and \$500 cash prizes at the 1971 National FFA Convention in Kansas City October 12-15.

Mettler

(Continued from page 14)

for VEE. Naturally, first supply of the vaccine was to go to veterinarians in Texas and areas threatened with the disease. By spring, this vaccine should be available to veterinarians here in the Northeast.

Orders will have to be placed well in advance. For this reason, I would suggest that you contact your local veterinarian and tell him how many horses you will want done next spring. Don't forget to have him use the Eastern and Western type of encephalomyelitis vaccine, too. Any sick horse should be brought to the attention of your veterinarian immediately.

In August, I was in Southern California and Arizona. I was not able to contact any of the veterinarians I wanted to see because all of them, including those whose practice is usually confined to cattle, were busy vaccinating horses.

It was hot and humid in the Southwest at that time, ideal weather for mosquitoes and the spread of disease. We are fortunate that cold weather is on its way here in the Northeast. If we start vaccinating horses in March, we can easily have them done by mosquito-time without slighting other necessary work.

At this writing, no cases of VEE have been diagnosed outside of Texas, though two cases of Eastern type encephalomyelitis in New York State in August caused a flurry of excitement and spraying of areas for mosquito control. By the time you read this, it will be October and I realize things could have changed. Until your horses have been vaccinated, or cold weather sets in, insect repellent will be in order. Perhaps this is one year we will be glad to see the cold rains come!

American Agriculturist, October, 1971



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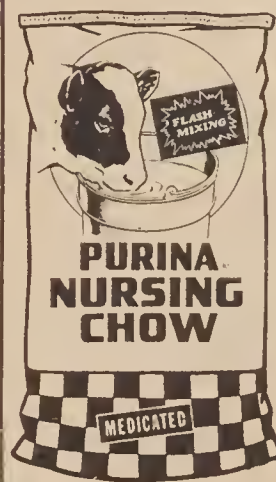
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THE PURINA CALF STARTING PROGRAM GIVES YOUR "FUTURES" A 100% CHANCE TO DEVELOP INTO HIGH-PRODUCING HERD REPLACEMENTS

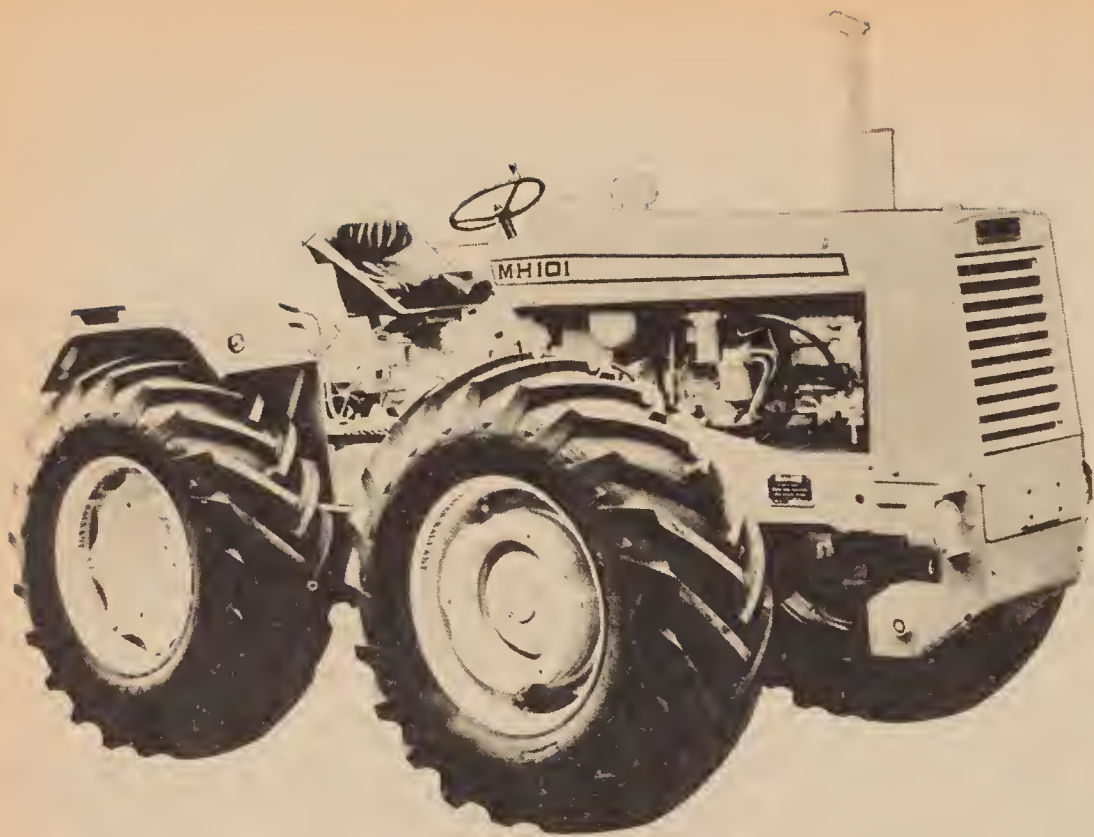
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What's NEW in the FIELD

by W. D. Pardee

CORN RUNNING OUT ITS EARS

IF you're like many northeastern farmers, your silos are getting full and you're figuring what to do with the rest of your corn crop. One answer may be some form of temporary silage container to stow it away as extra winter feed.

For suggestions, I've leaned heavily on Professors Joe Campbell and Bill Irish, Department of Agricultural Engineering at Cornell. Both have long experience in the practical storage of corn silage and grain.

No Air

Air exclusion is the key to good silage-making in permanent or temporary storage. This means you should aim to get air out of the silage mass as quickly as possible, then keep it out. Oxygen in the air is fine for we who breathe, but it also stimulates molds and bacteria that cause silage to heat and spoil.

Fine chopping to ease packing is particularly important in silage going into temporary storage. You're bound to have more air exposure than in tower or bunker silos, so you'll want

the silage to pack as tightly as possible. This makes fineness of chop a critical matter. So be sure your knives are sharp!

Shoot for a 1/4-inch cut. Many choppers will give a 3/16-inch chop, and this is okay . . . but 1/4-inch should be adequate.

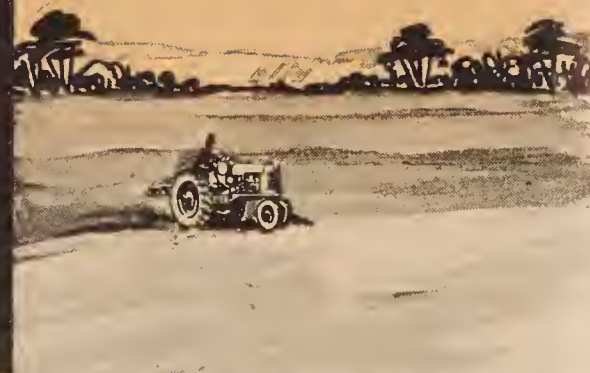
Recutting screens can increase fineness of chop, though they call for considerable additional power. They pay in mature or frosted corn that's pretty well dried down.

Quick filling is a must. Don't stop halfway and take out several days making late hay. You'll get air in the silage, which will be tough to get out despite later additions.

Good packing is also necessary. Packing drives out air and leaves the mass compressed to better resist air invasion later on. The denser you can pack, the better your silage will keep. Good packing can drive out about half of the air present in silage.

Cover quickly, as soon as possible after filling is completed. The more airtight your covering arrangements, the better.

For quick and easy storage, it's tough to beat a plastic-covered



NEW FROM SNO-LANDER:

McKee Bros. Limited, the world's largest manufacturers of tractor mounted two stage Rotary Snowploughs for farm or industry, are introducing two versatile new models for 1972.

The new Model 620 has a full seven foot cut and fits most 3 point hitch tractors up to 65 H.P.

McKee Sno-lander Rotary ploughs of units from a four feet wide Clear up to 500 tons of snow mount, self powered. McKee

provide the widest selection cut up to a giant 9 foot. per hour. Front mount, rear Bros., have the widest choice of options available. Remember, only Sno-lander provides the right model for the right job. And there are sales, service and parts never far away.

The all new Model 820 has a full 8 foot cut and mounts front or rear on tractors up to 110 H.P.

MODEL 820

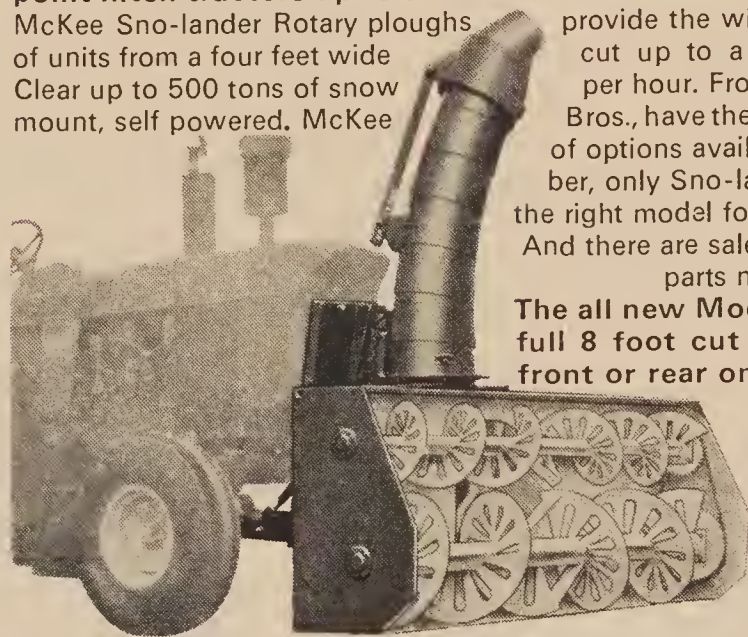
**McKEE BROS.
LIMITED,**
Elmira, Ontario, Canada.

See our other models, too.

The popular and versatile 520 (cuts 6 feet wide), the double auger 720 (cuts 7 feet wide), and the big daddy of them all, the 920 (cuts 9 feet wide.)

All models now feature:

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- improved casting chutes and casting chute rotators
- heavy duty auger shafts and bearing mounts.



MODEL 620

Write or call your distributor for a complete catalogue, and name of nearest dealer.

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"stack." Locate this close to your feeding operation, but not where cattle or young stock can get on it. Choose a spot with some slope to provide above-ground drainage.

Use polyethylene plastic for both bottom and top. For best results, choose sheets of 6 or 8 mil. Thinner sheets are easily ripped by wind, small animals and stones. Black plastic won't deteriorate as quickly in sunlight as clear plastics, so should be your first choice.

In locating your stack, be sure you have good opportunity for water to run off and away from the stack.

Surrounding drainage is important since fall rains and spring thaws can make stacks inaccessible to anything except a man in boots and a wheelbarrow. Also, before placing your bottom sheet, clear out stones and other items that may tear the plastic or interfere with later feeding of the silage or its transfer into regular silos.

Trench Silos

Trench silos are also possible and popular in some areas. They require some earth moving and good sub-surface drainage. They're easier to fill and pack than stacks, but often harder to feed from.

Once again, surface drainage is important. Trenches are best on side-hills or no knolls that won't collect water. We've seen trenches in low spots filled with run-off or melt water that held silage fit only for a manure pile!

For top-quality silage, feed out your silage from temporary storage as rapidly as possible. With cool

weather coming on, you may be able to avoid spoilage this fall. But by all means have temporary storage emptied before warm weather comes next spring.

Temporary storages can require lots of labor for covering, uncovering, removing spoiled silage and, above all, feeding. You can avoid much of this by moving your silage from temporary storage into your normal tower silos and thus into automated feeding systems. This makes a good job for a dry winter day, and helps you miss the daily battle with the weather to feed out of outdoor storage.

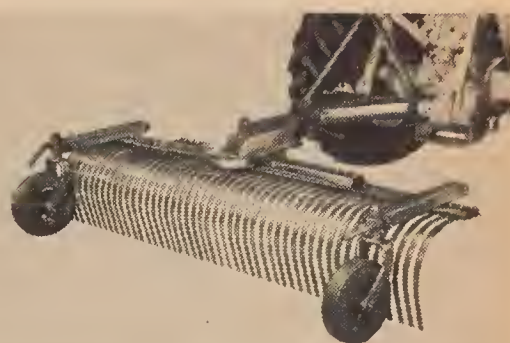
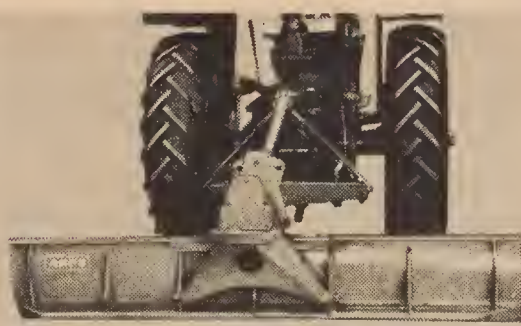
One big advantage here is that you open the stack only once and get the silage into permanent storage quickly. This minimizes spoilage, particularly if you do it in cold weather. If you plan to go this route, put your stack as close to your silo as possible. Put it on concrete if you can or clear the ground of loose stones.

Chances are you have a choice between putting your corn up as silage in temporary storage, or leaving it for grain. Your decision should depend on the chances of getting the crop dry enough for grain harvest, whether you have sufficient acreage to justify the costs of harvesting and storing the grain, the outlook for local grain prices and other factors.

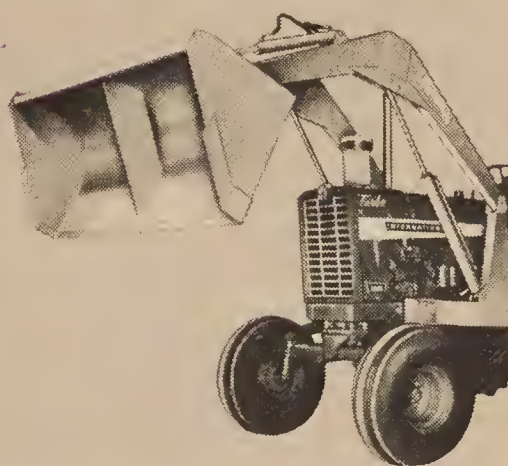
Your biggest consideration should be whether you can make good use of corn silage. If you have livestock that can use more silage, you are probably better off to put some into

(Continued on page 18)

Arps plays the numbers game...and you win!



7 rear blades and 4 interchangeable rakes...



and 3 classes of loaders, *all* custom-designed and built for use with *all* popular tractor makes and models, including compacts. Full range of quality-made Arps accessories available, too.

For these and other job-matched Arps products, such as dozers, post hole diggers, snow blowers and stump cutters, see your Arps dealer. For more information, fill in and mail the coupon below.



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Facts prove it *ski-doo* '72 Better overall

We want you to look at Ski-Doo early this year for a very good reason. We want people who really know their snowmobiles to get a good long look at Ski-Doo '72 before snow comes.

You see, the longer you look at Ski-Doo '72, the more good reasons you find for buying it. Good reasons like the Rotax engine that's designed specifically for winter, so it starts even at 40 below. Keeps

on going thanks to a heat-dissipating aluminium alloy block, aluminium pistons and special cooling fins. Keeps going strong thanks to a balanced governor, clutch and drive assembly that give you the right torque at any speed. Then there's steering. Efficient steering that carves tight turns. Ball joint steering for less play. Choice of bogies or track-flattening slide suspension and a super-tough cab.

These are just a few of the many, many reasons why Ski-Doo '72 has more going for you. And this is the season when your Ski-Doo dealer has plenty of time to give you all the cold hard facts. The season when the pros choose their snowmobiles.

See them now!

(Continued from page 17)

good temporary storage rather than to harvest grain. Farm management studies over recent years have shown greater returns from harvesting corn as silage than from grain. Low corn-grain prices this fall could add to the benefit of storing your corn crop as silage.

FALL QUACKGRASS CONTROL

If you've more quackgrass than you'd like in one or more of your fields, now's the time to begin a one-two punch to get rid of this pest. Quack will be growing vigorously over the next three weeks, making it highly susceptible to atrazine.

Dr. Bill Duke, Cornell weed specialist, suggests that this is the time to go on with 2-3 lbs. of active-ingredient atrazine (2.5-3.5 lbs. of 80W) per acre. Apply this in 15-20 gallons of water per acre sometime before October 20, or while quack is still growing. Wait at least 5 days, then plow. Then, to reduce erosion, leave this fall-plowed land rough over winter.

Next spring, work the ground early, then plant corn and use a post-emergence spray of atrazine and oil when the corn is 1 to 2 inches tall. For best control, plan on one cultivation to get any leftover quackgrass, and to knock out annual weed encroachment.

This fall-spring split application has an enviable record of knocking

out quackgrass, even where it's in solid stands.

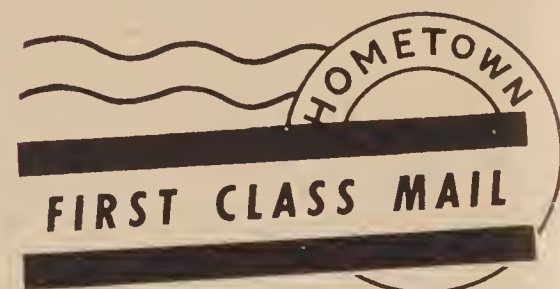
Check your quackgrass while you're harvesting corn. Chances are you'll find one or more of your fields have more than you thought. Also take a look at any small grain stubble that you plan to switch into corn next year. The next few weeks are the optimum time to clobber quack with 2-3 lbs of atrazine, followed in 5-10 days by plowing.

By applying atrazine now, you can catch the quackgrass while it's still growing and translocating materials down to its roots. Fall plowing further cuts its vigor.

One warning, though. Use this fall-spring application only where you plan to grow corn on the field in both 1972 and 1973. You'll risk

damage to alfalfa, small grain, or beans, if you sow these crops, since you're putting on quite a dose of atrazine.

Despite this restriction, it's a darn good way to clean up quack. We've seen farmers who have eliminated solid stands of quack in one year through these steps. Others have damaged it so thoroughly that one pre-emergence application the following year finished the job.



NOT DEAD

Lake Erie is continually being described as "dead," "dying," or "grossly polluted," when in fact it is not dead.

The pollutants are confined to the inshore areas, and the lake does continue to produce some 50 million pounds of fish per year. More importantly, these 50 million pounds are commercial production . . . and it has been shown in many years that sports landings of important species equal or surpass the commercial production.

The major difference in today's Lake Erie fish species as compared to 50 years ago is the species composition. There has been during this period a change from blue pike, whitefish, sauger, and cisco to white bass, channel catfish, yellow perch, walleye, freshwater drum, and carp.

More specifically, the 1969 total Lake Erie commercial landings exceeded 60 million pounds, of which yellow perch comprised nearly half, and smelt (harvested in Ontario waters) comprised 16 million pounds.

— Russell L. Scholl, Fish Management Supervisor, Lake Erie Fisheries



When you can't work your land, enjoy it on a Bolens Sprint.®

New power pedigrees for '72 from 292 to 433 cc's.

Winter. Your quiet time. A time to enjoy the land you've been sweating over. A time to do a little hunting, or just getting re-acquainted with what is yours.

When you hitch up to a Bolens Sprint, you can see your land like you've never seen it before. You have the freedom and mobility to roam. The restrictions winter has put on man for centuries are broken. You can enter into a flawless world of unsullied snow few present day men ever see.

And Bolens can even give you the option of how you get

there. Choose from a half dozen of the best engines ever designed for snow going . . . engines designed exclusively for snowmobiling, exclusively for Bolens. Go with 292, 295, 340, 399 or 433 cc's. And for the man who can handle it, there's a sizzling 440 Sport with a famous Bolens-Kiekhäfer engine. Two-cylinder engines that start easy, start fast in the coldest temperatures.

Each of the Bolens breed is bred with a wide-stance, sure-grip track, big capacity fuel tanks, disc brakes, all the features you need to make a day in the great outdoors . . . simply great.

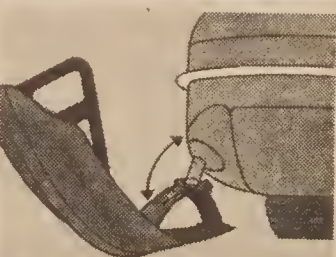
If you haven't any work to do today, why not see the new pedigree performers at your Bolens Sprint dealer?



New quiet-tone mufflers maximize horsepower while keeping the noise down to a mellow, no-shout level.



Big and bright headlamps and tail lights light the way and let the guy behind you know where you are.



30° spindles increase stability and maneuverability. Gives race-car like handling to even novice drivers.



Not long ago, AMERICAN AGRICULTURIST published information about the beef and maple syrup operation of August and Irene Andersen, near Long Eddy, New York. Now their children make news! This brother-sister combination took the top two junior individual spots in judging at the recent Pennsylvania Junior Hereford Association Field Day. Peter Andersen, 14, placed second and sister Amy, 16, was first. They are members of Hill Top Valley 4-H Club, and both show Herefords as 4-H projects.

The bold breed for '72



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HOW CORN CHAMPIONS PRODUCE THOSE WINNING YIELDS

Consecutive victories for John Everett in New Jersey

For the third straight year **John Everett** of Somerville, N.J., has topped the state in the National Corn Growers Association Yield Contest.

His 1970 victory in the non-irrigated division was made with a yield of 135.08 bushels per acre with single cross PX 50.

"We try to go over the field as few times as possible, and we aim for a population of 23-24,000 per acre in 38-inch rows. Plant vigor was excellent . . . green and growing all the time," he reported.

"PX 50 really starts out fast. Insect and disease resistance were good and standability was excellent."

MORRILL REPEAT WINNER IN NEW HAMPSHIRE

Another three-year winner was **David Morrill** of Penacook, New Hampshire. His official 25-acre field contest field yielded 130.21 bushels per acre. It topped the state in the non-irrigated class. **Morrill** planted two hybrids, both from Northrup King. They were PX 50 and KE 497.

"We're interested in both grain and silage," **Morrill** says. "We like to put quality in the silage. We're concerned about the energy. It's simpler and easier to put the energy in the silo than to simply put in a

lot of fill and then have to deliver the energy later from some other costly source."

The feeding records for the **Morrill** dairy operation prove that corn and dairy can be a good combination for eastern dairymen.

\$257 GROSS, \$150 NET PROFIT FOR MARYLAND 1970 YIELD CHAMPION

"In our area, \$50-75 per acre net profit is considered good," says **Robert Dayhoff** of Dickerson, Md. "But in 1970 I grossed \$257 per acre with a net profit of \$150."

How did **Dayhoff** beat the average by so much? Here's his corn-growing program:

First of all, heavy fertilization. Five hundred pounds of 10-20-20 disced in before planting. Another 200 pounds of the same formulation was applied at planting . . . and then 100 pounds of liquid nitrogen was added for good vigor and a fast start.

Next, he selected a hybrid that he knew had big yield potential. "Our yields with PX 610 have always been good . . . over 100 bushels per acre for the last three years. He planted at a population of 23,560, did not cultivate, but sprayed for weed control.

The PX 610 payoff: 187.87 bu./A.

ASSOCIATION SETS TOUGH STANDARDS

There are many corn yield contests. Probably the one with the toughest regulations is the National Corn Growers Association Yield Contest. Contest fields must be at least 25 acres in size . . . which eliminates small patches of pampered corn. Yields must be verified by impartial officials. And winning fields are inspected and measured by county agents or local vocational agriculture instructors. The N.C.G.A. is an independent organization unaffiliated with any corn company, so results are impartial and objective.

FIRST REPORTS ON HIGH-LYSINE CORN ARE ENCOURAGING

You've read a lot about the development of new "super corns" that are unusually high in lysine. The reports of men who tried them last year are coming in. Here are their comments:

"I was most surprised at the yield," says **Earle Stonesifer** of Tarytown, Md. "My Northrup King Superior Protein (SP) hybrid out-yielded another variety in a nearby field. I'm firmly convinced it's very valuable for hog feeding."

"My feed cost per pound of pork was less," says pork producer **Bill McQuern**. And his NK Superior Protein corn yielded 161 bu./A.

"Better feed conversion, less supplement," was the conclusion of **Paul Waggoner** who did a split-pen test with 100 hogs.

HIGHEST YIELD IN HISTORY!

"This is what a corn grower dreams of," says National Corn Yield Champion **Joe Maria** of Walnut Grove, California.

Not only did he top the nation in the irrigated division, but his yield of 249.74 bushels per acre was the highest ever recorded by the National Corn Growers Association Yield Contest.

His winning 26.7-acre field of NK 1130 was planted in 30-inch rows at a population of 28,000 per acre. Good management under irrigation produced this winning yield.

VERMONT CHAMPION PLANTS PX 446 AND KE 497

Xenophen Wheeler, Richmond, was the first place non-irrigated yield champion in his state. Combining good management with two outstanding Northrup King hybrids, PX 446 and KE 497, **Wheeler** harvested an average of 135.85 bu./A. from his 25-acre contest field.

NK SILAGE CORN IS BRED TO PRODUCE BIG GRAIN YIELDS FOR HIGH TDN FEED

When corn is ready for ensiling, the ear makes up about two-thirds of the total nutritive value. And corn ears have about 60-65% TDN (total digestible nutrients). So you can see why a corn hybrid that produces a big yield of grain will give you a rich silage . . . far richer than so-called silage hybrids that are mostly stalk and runty ears.

Corn silage can produce more TDN per acre than anything else you can grow. Here are the NK hybrids bred for it: PX 446, KE 497, PX 50.

NK HYBRIDS WIN FROM COAST TO COAST

From California to Vermont and right through the heart of the Corn Belt, Northrup King Superstar corn hybrids proved their superiority again in 1970.

Fourteen first place awards and eleven second place awards went to NK growers in the National Corn Growers Association Yield Contest.

The NK three-year record in this official competition . . . 26 state victories and two nation championships . . . ends all arguments. NK corn hybrids are truly Superstars. For 1972 . . . plant all you can get!

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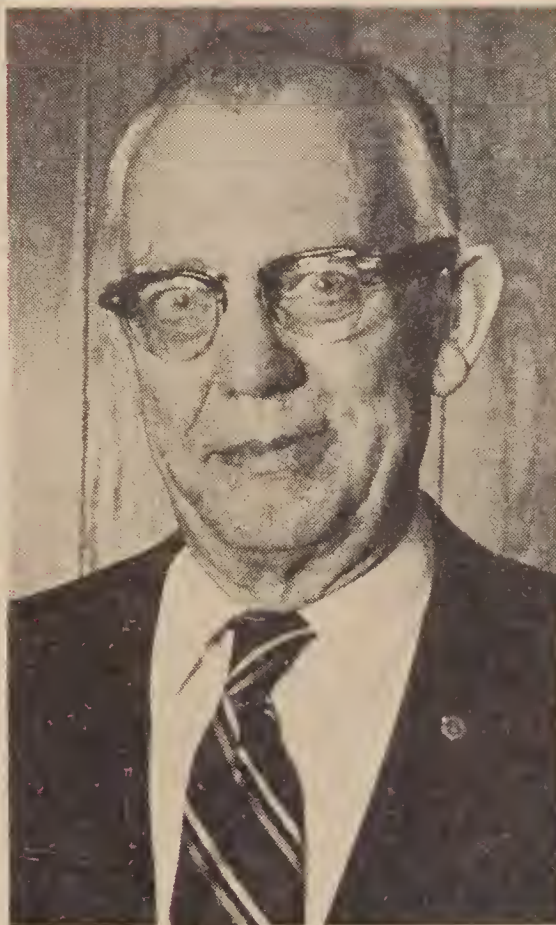
EAST COAST GROWERS SELECT THE TOP HYBRIDS: PX 446, KE 497, PX 50, PX 610



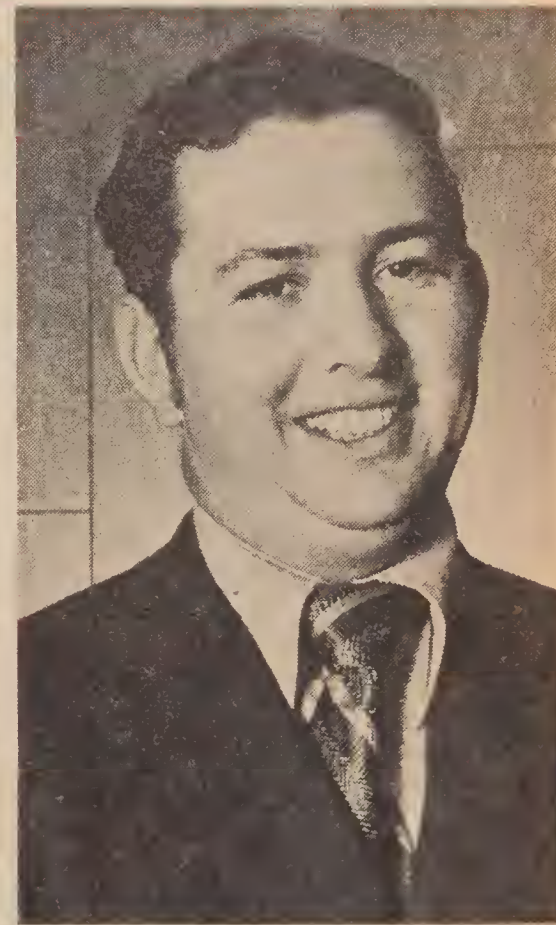
JOHN EVERETT won in New Jersey with PX 50 and a yield of 135.08 bu./A.



DAVID MORRILL won in New Hampshire with PX 50 and KE 497. 130.21 bu./A.



XENOPHEN WHEELER won in Vermont with PX 446 and KE 497. 135.85 bu./A.



ROBERT DAYHOFF won in Maryland with PX 610 and a yield of 187.87 bu./A.

DRY BEAN DAY

A statewide dry bean field day, held near Stafford, New York, leads an attending farm reporter to these conclusions.

1. When considering herbicides like Eptam, Treflan, dinitro, and Planavin, a grower should be thoroughly aware of what weeds he's fighting hardest. For instance, Planavin won't take out ragweed . . . and it appears that nothing kills milkweed. Tailor the herbicide selection

to the weeds prevalent in the particular field.

Dinitro at cracking time (just as bean plants crack the surface) performed well as a supplement to other herbicides.

No single herbicide will get all weeds in beans; a combination of two herbicides often works best because it has a broader spectrum of weed control than either one alone.

Herbicides incorporated into the soil before planting lose effectiveness if later cultivation is deep. If beans are cultivated, do it shallowly so that new weed seeds are not pulled to the surface from below the herbicide-treated area.

2. No-till beans did not appear to be an acceptable alternative. There may be farmers who could prove that statement false by producing a bumper crop of no-till beans . . . but test-plot experience is not encouraging.

3. Di-Syston and Thimet . . . both systemic insecticides . . . looked good in controlling insects. Both are applied at planting time, and absorbed by the roots of the bean plant . . . rendering the plant toxic to insects. No residue is left in the

beans themselves, however, at harvest.

The systemics pretty well control sucking insects (such as leafhoppers), and suppress chewing insects (like the Mexican bean beetle).

Growers should be careful to add these insecticides through the fertilizer shoe, not the seed-drop area, because of the possibility of seedling injury if the chemical touches the germinating seed.

4. Systemic fungicides show promise . . . Benlate is not yet labeled for dry beans (it is for snap beans), but Demosan is labeled as a seed-treatment fungicide that helps suppress root rot.

Researchers and farmers alike have high hopes for major help with disease control from systemic fungicides . . . present and future.

5. For the 1971 harvest season, no defoliant is registered for use on dry beans. Shed-A-Leaf may be used legally if a grower already has it on hand, but it is no longer being sold as a defoliant.

6. Plant breeders are working on earlier-maturing varieties that can keep farmers out of that October mud . . . November mud . . . would you believe January mud? Dry beans have long been notorious for developing enlarged vocabularies among farmers desperately trying to harvest them after fall rains set in!

7. Planting existing bean varieties earlier is being promoted by college researchers. Farmers have tended to hold off planting until they're sure the ground was warmed up enough to get beans off to a flying start . . . but researchers say that when soil temperature has reached the 60-65 degree F. range, let 'er rip!

8. Experiments on planting beans with a drill (at 7-inch row intervals) show erratic results. Yields sometimes exceed those of regular planted beans in the same field, but sometimes are lower.

9. The demonstration of tillage and harvesting equipment always intrigues farmers . . . and this field day was no exception. The direct harvest of beans (without the usual pulling and windrowing) probably created the most interest. Addison Sheckler, Cato, New York, demonstrated a modified combine for direct harvest, as did Ford.



So long,
sparkless
plugs.

Evinrude introduces Firepower ignition.

It's the hottest thing going in snowmobiles. *Firepower*. Evinrude's new solid state CD electronic ignition system.

Firepower puts an end to your most persistent pain in the neck — and in the pocketbook. The irritation and cost of frequent spark plug changes.

Spark plugs actually last up to ten times longer on the five new Evinrude snowmobiles equipped with Firepower.

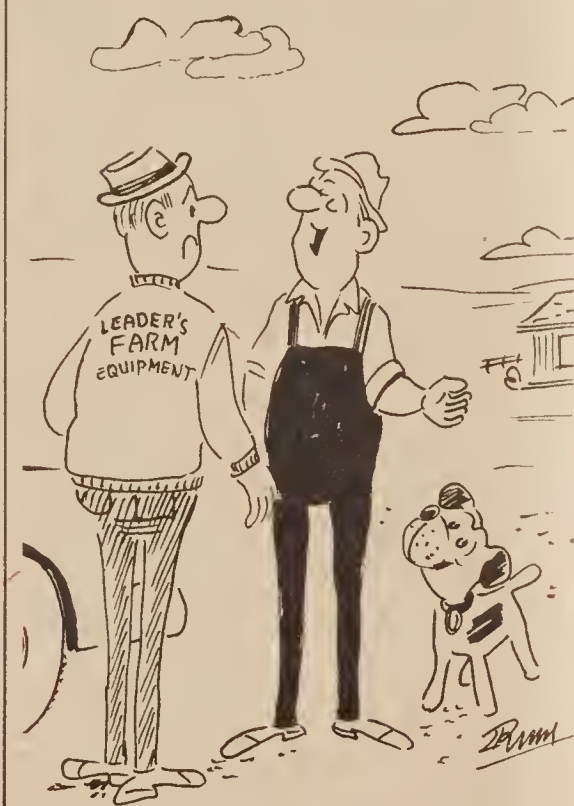
Starts come quick and easy. You can idle your Evinrude without fouling the plugs. And with this fast, 40,000 volt spark, combustion is clean and complete.

With Firepower, there are no breakers, no points, no wearing parts to fix or adjust. This simple, efficient system is permanently timed at the factory.

So, see the new Evinrude snowmobiles with Firepower at your dealer. And, put some spark back in your sport.

Catalog free. Write Evinrude Motors, 4258 N. 27th St., Milwaukee, Wis. 53216

EVINRUDE SNOWMOBILES
Div. of Outboard Marine Corporation



"I like the way your planter demonstrated. Do you demonstrate harvesters?"

American Agriculturist, October, 1971



Passengers on board a cruise steamer get a close-up view of Curacao's floating bridge, which is swung aside to let ships enter or leave this busy harbor.

LEAVE WINTER BEHIND!

Everyone who goes on an AMERICAN AGRICULTURIST Caribbean Cruise returns feeling it has been one of the most enjoyable trips ever! There is something about cruising the blue Caribbean from one beautiful tropical island to another, with sunshine, flowers, and new and strange sights on every hand that is hard to match anywhere else.

AMERICAN AGRICULTURIST invites you to come with us next February and enjoy all the pleasures of a delightful vacation in the lands of eternal summer. Dates for our Caribbean Cruise will be **February 12 to 25**, and you can join it at either New York City or Port Everglades, Florida.

Our ship will be the luxurious SS Raffaello of the Italian Line, and she has everything you could possibly want on a cruise ship... air conditioning throughout, six swimming pools, smart and spacious staterooms, marvelous food, beautiful lounges, and acres of broad, sunny deck space.

TSB Means Perfection

In charge of our party will be our very competent tour directors, the Travel Service Bureau of Needham, Massachusetts, and they will look after us from start to finish. Those of you who have traveled with us know this means perfection in every detail!

Our February cruise includes stopovers at five of the most fascinating islands in the Caribbean. Our first port of call is **Puerto Rico**. Sightseeing in and near the capital city of San Juan will include a tour to El Yunque Rain Forest with its jungle-like tropical vegetation, wild orchids and waterfalls, a visit to magnificent Luquillo Beach, and a drive through San Juan to see the historical landmarks of the Old Town, Santurce's residential section, and the University of Puerto Rico's beautiful campus.

St. Thomas is best known of the Virgin Islands. Its capital and harbor city, Charlotte Amalie, stretches

upward from the sea to beautiful hills overlooking the ocean. Here is a real shopper's paradise! Narrow lanes are lined with delightful shops where you can find all sorts of bargains, duty free.

Curacao was first settled by the Dutch in 1634, and the island remains distinctly Netherlands in character and architecture. Willemstad is a charming town of rainbow-hued buildings, and the city is divided into two sections by the famous Queen Emma pontoon bridge that swings open to let ships pass in and out of the harbor.

Martinique is one of the most completely tropical islands in the Caribbean—the temperature varies only five or six degrees throughout the year. It is covered with exotic flowers, lush shrubs and trees, and is the home of the tantalizing rhythm of the Beguine.

Driving around the island, we will see the capital, Fort-de-France, quaint fishing villages, the former historic capital of St. Pierre, Mount Pelee, and many other interesting spots.

You'll find a contrast of foreign flavors on **St. Maarten**, for flags of both France and the Netherlands fly over this snug little island. So far it has escaped the excessive commercialism found on some of the other islands, and you'll enjoy its loveliness... roads meandering through steep, grassy hills, beautiful views of the sea with other islands on the horizon, and little villages nestled in the valleys.

Don't let this perfect winter vacation pass you by! Mail the coupon today, and we'll send you the day-by-day itinerary and full information about costs.

Florida Circle Tour

Here's another chance to get away from the cold Northeastern winter; join our Florida Circle Tour from **February 19 to March 4** and spend two weeks in the Sunshine

(Continued on page 24)

Gordon Gonklin, Editor
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Your Badger dealer wants you to test-drive a Badger Manure Spreader and prove to yourself it's the best spreader for your farming operation.

And he'll give you a transistor pocket radio, FREE, just for trying out a Badger spreader. There's no obligation... use the Badger Manure Spreader on your farm, and tell your dealer what you think of it.

Demonstrator Discount

If you decide to buy the spreader you have tested, your Badger dealer will give you a special demonstrator discount. Ask him!

Act now... Badger Manure Spreaders, 200 and 240 bushel models, big capacity and dependability.

Offer good at participating Badger dealers until November 30, 1971. Write for free information and the name of your nearest Badger dealer.



Badger

**Bold Ideas
That Work!**

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It really lasts because worn out panels that usually spell finish to the ordinary cart are very easily and economically replaced on the Agway feed cart. Besides this exclusive feature, ball bearing wheels make it easy to roll and maneuver; the chassis is full support, all welded; it has full 16 bushel capacity, and a narrow 24" width. This rugged cart will give you years and years of service. Check on this long lasting cart today. You can buy it assembled, ready to roll.



See your local Agway Store
or Representative soon



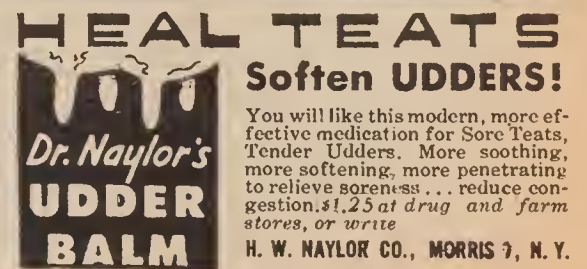
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DAIRY PROMOTION ORDER

A committee of dairy farmers, appointed by the New York State Commissioner of Agriculture and Markets, has developed a proposed dairy promotion order and recommended it to the various farm organizations which they represent. Here's a brief explanation of the terms and provisions of the proposed order:

Purpose

To collect monies from dairy farmers on a uniform basis for:

1. Advertising and promotion of

dairy products in New York State.

2. Milk marketing and dairy product research.

3. Keeping milk producers informed as to progress and developments in milk and dairy product marketing, research and promotion.

Persons Affected

Each producer of milk or cream in New York State for market would be required to contribute to the dairy promotion effort at a uniform rate of assessment. Producers marketing their milk under one of the

New York State orders, or a federal order outside the state where a local promotion plan is in effect, would be credited with the amount per hundredweight contributed voluntarily or otherwise to their local program.

This credit or exemption from the assessment under the Dairy Promotion Order would permit producers in the Niagara Frontier and Rochester markets, for example, to maintain their established local programs of milk promotion.

Each milk dealer receiving milk or cream from New York State producers would be required to deduct the assessment provided under the Dairy Promotion Order from the price otherwise to be paid to producers and to pay such monies to

the Commissioner on or before the 25th day of the month for deposit in the Dairy Promotion Fund.

Each such milk dealer (including a dealer handling only milk of his own production) would be required to maintain records and file reports with respect to the collection of the promotion monies and would be subject to audit and enforcement by the Commissioner.

Advisory Board

An Advisory Board of not more than ten milk producers would advise and assist the Commissioner in the administration of the Dairy Promotion Order. Nine such producers would be appointed from nominations submitted by eleven major farm organizations, and one would be appointed to represent the interests of any other producers in New York State. The term of appointment would be three years for each member of the Board.

Among the duties and responsibilities assigned to the Board are:

1. Recommend rules, regulations and amendments to the Order.
2. Prepare an estimated budget each year and otherwise assist in the administration of the Order.
3. Prepare recommendations on the expenditure of promotion funds as among the various needs and programs which are available for advertising and promoting dairy products, educating the public and conducting marketing and product research.
4. Evaluate and review the cost and effectiveness of each promotion program, including the cost of administration.
5. Keep producers informed as to operation of the Order and the expenditure of promotion funds.

The rate of assessment per hundredweight of milk marketed will be determined each year on the basis of the estimated budget submitted by the Advisory Board. However, the Order would set a maximum rate of 5 cents per hundredweight of milk or the milk equivalent of cream delivered by each producer.

Expenditures

The cost of administering the Order could not exceed 5 percent of the monies estimated to be collected from producers in the budget for the year. The remainder of the fund would be spent directly on those dairy promotion activities recommended by the Advisory Board. All disbursements would be

(Continued on page 24)

Good cow milking in an economical package

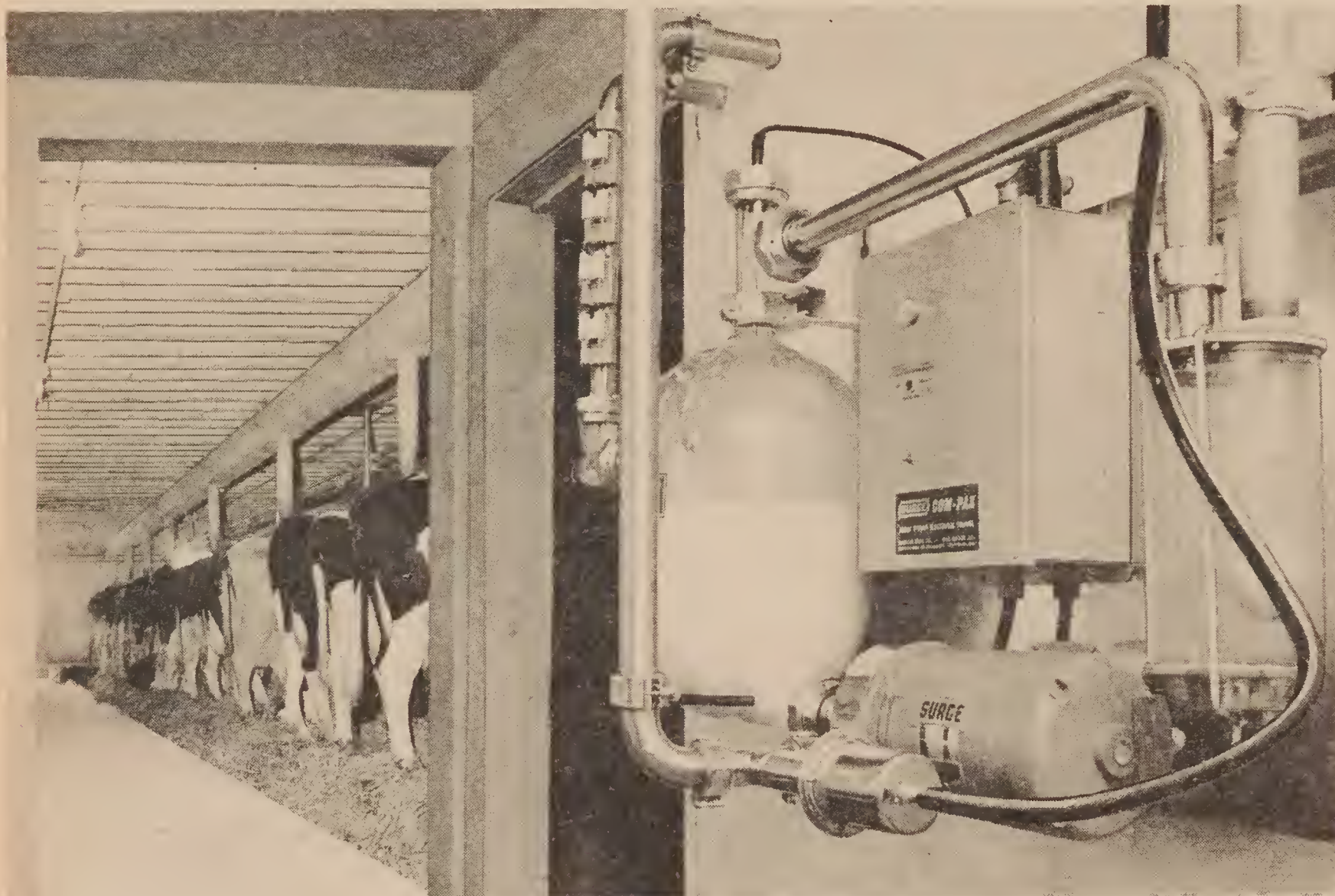
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easy, low-cost installation. The complete PACEMAKER pipeline system incorporates the Surge Alamo Vacuum Pump, Surge Breaker Cup Milker or Mini-Cup Milker and Electric Pulsation. It delivers the necessary

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"Sure I can tell you how I paid for my farm. I never go out on strike!"

American Agriculturist, October, 1971



A HOT REACTION

by Amos Kirby
New Jersey Editor

THE temperature may have been 90 in the shade, but that was cool compared to the reaction to a new law that went into effect in New Jersey on September 5.

This law in itself has a number of redeeming features, but some of the requirements have aroused vigorous protests.

The law concerns the establishment of toilet facilities for workers. What has aroused the growers, especially in the fruit and vegetable areas, is that a facility must be located within 500 feet of where the worker is employed. This becomes quite complicated where workers are in fields that may be a half-mile long.

While the law is aimed largely at the fruit and vegetable areas where large numbers of seasonal workers are employed, it can apply to **any** farmer who employs seasonal workers. On most grain, hay and livestock farms there at times are seasonal workers. If the State Department of Labor applies the law equally, every farm operator hiring workers needs to take a close look at the law to see if it applies to his operation.

Checking of toilet facilities will be in the hands of Labor Department inspectors.

PROCESSING INDUSTRY

Can the vegetable processing industry in the Northeast meet competition and survive? This is a question that four states are attempting to answer.

A unified study of the future of the processing industry is being sponsored by the University of Delaware, Rutgers University, University of Maryland and Virginia Polytechnic Institute.

The first phase of the study will focus on the advantages and disadvantages of producing and processing tomatoes and peas in the Middle Atlantic Region compared with other major production areas. Other studies will be centered on sweet potatoes and other vegetables.

DAIRY FEEDS

Homegrown small grains such as barley and wheat have an important place in the feeding program of dairy cattle.

The Extension Service reports that if one compares wheat and barley with corn-and-cob meal there is no contest whatever on the protein side. Barley has 10 percent digestible protein, wheat 11.1 percent, and the corn ingredient only 5.4 percent.

CORN BLIGHT

Corn showing the presence of the southern corn leaf blight can be used for silage. Studies conducted in 1970 at a number of state agricultural colleges indicate that the corn can be green-chopped, or made into silage, for dairy and beef cattle and

fed with satisfactory results.

Palatability of this silage can be a problem if the disease is severe. To overcome this, silage corn should be cut as early as possible. Corn silage chopped to ¼ to ¾ inches will improve the palatability, and promote proper fermentation.

Hundreds of New Jersey growers sprayed their cornfields with fungicide to prevent blight.

BARLEY MARKET

Delaware, long famous for corn and soybeans, may soon move into barley for malting. The National Brewing Company is looking for 1,500 acres of the Tschermak variety, one that is especially

adapted for brewing.

New Jersey has been experimenting with Tschermak, and the results have been mostly satisfactory. It is a crop that is in demand, can be mechanized, and is marketable for seed, feed, or to the malting trade.



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The outstanding silage potential of Funk's G-Hybrids has been repeatedly proven by the Pennsylvania Agricultural Progress Days Silage Competition where, for a consecutive number of years, they have consistently received the top honors.

For 1972, do not accept less than the *proven* performance of Funk's G-Hybrids for silage.

Every Funk's G-Hybrid offered for 1972 planting—including, without exception, the many important new varieties—has been an important part of farmers' corn growing programs in 1971. Not just in small experimental plantings, but in full-farm-profit production. This allows you to be certain the hybrids you choose for 1972 are *proven!*

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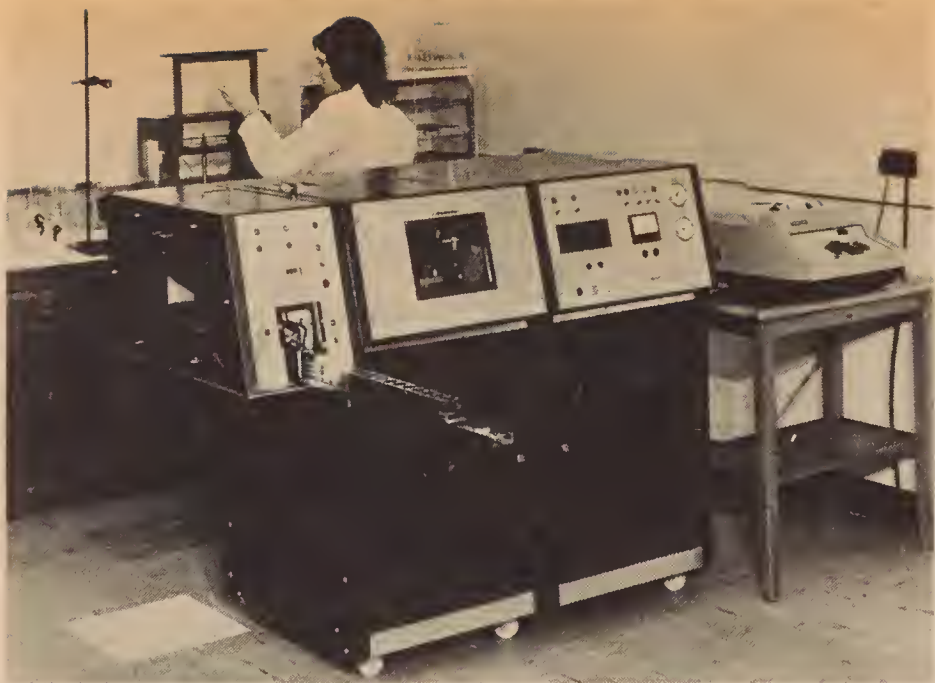
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The limitation of warranty and remedy on the tag attached to each bag of Funk's G-Hybrid sold is a part of the terms of sale thereof.





Automatic analysis of all three main components in milk is now possible for the first time, according to the manufacturer of IRMA (Infro Red Milk Analyzer), developed in Britain. The equipment allows fully automatic sequential analysis of milk fat, protein and lactose from the same sample, and the cycle is very fast: fat determination takes 20 seconds, fat and protein 27 seconds and lactose 34 seconds.

Winter

(Continued from page 21)

State. We will travel to Jacksonville by train and then pick up our private motor coach for a wonderful vacation that includes all the places in Florida you've always wanted to see.

Space does not permit us to mention everything we will do, but here are some of the highlights — St. Augustine and the Fountain of Youth, Marineland of Florida, Kennedy Space Center, Lion Country Safari, Key West, Everglades National Park, Ringling Museum, Cypress Gardens, Bok Singing Tower, and finally the brand new "Wonderful World of Disney."

Your all-expense ticket covers everything (except two meals while

you're at leisure in Walt Disney World) — all transportation and baggage handling, beautiful hotel rooms and wonderful food, all admission charges, and best of all, your experienced escort will take care of all details, so you can relax and enjoy every minute. Make your reservation today.

Thanksgiving in Bermuda

It's still possible for you to spend Thanksgiving Week in Bermuda at the beautiful Princess Hotel. You'll enjoy sightseeing, shopping, swimming, golfing, deep sea fishing, and the many other attractions this magic island offers. Decide now to come with us.

Order

(Continued from page 22)

made by the Commissioner and subject to audit by the State Comptroller.

Members of the Advisory Board would not receive salaries, but would be reimbursed for actual and reasonable expenses incurred in the performance of their Board duties.

Effective Period

In accordance with the Dairy Promotion Act, the Order would be resubmitted to producers for approval or disapproval after three years of operation if it is not amended or otherwise voted upon within such period of time. At any time during the three-year period, the Commissioner would be required to call a hearing to consider amending or terminating the Dairy Promotion Order if petitioned by 25 percent or more of producers. An affirmative vote by not less than 51 percent of producers would be required to approve such amendment or termination of the Order.

In the 1971 legislative session, New York's Dairy Promotion Law was amended to provide for representative voting on a promotion order by cooperative associations with the consent of their member-producers, and the further requirement that before such an order can become effective it must be approved by not less than 51 percent of all milk producers who would be subject to the order. Prior to this amendment of the law, all voting was on an individual producer basis and the affirmative vote of two-thirds of those actually casting ballots was required for approval.

These original voting requirements would have meant that if one-half of the producers participated in a referendum (an unusually high turnout with individual balloting), a promotion order could have been carried with the vote of only one-third of all milk producers. Conversely, a negative vote of only 17 percent of all milk producers could have rejected an order where the turnout was 50 percent. The amended voting procedure is more representative of the desires of the majority of dairy farmers and is more practical from an administrative viewpoint.

A public hearing was held on August 24, offering an opportunity for all interested persons to comment on the proposed order. Next step . . . a producer referendum to determine the acceptability of its provisions.

American Agriculturist, October, 1971



Dependability never looked so good.

Anybody can build a stylish sled. But leave it to Rupp to come up with a snowmobile that performs as well as it looks. We call it *American*. And under the sleek exterior is a machine that comes through when you need it. To start, simply flick the key. A standard electric starter instantly fires up the reliable Rupp twin-cylinder engine. Your choice of 30 or 40 horses, all eager to move you here, there and everywhere. When you want.

And when you want to stop, extra-large separate flange disc brakes take over. They make stopping an American

as easy as starting it. But there's more to this sled than quick starts and confident stops. Like a light aluminum chassis and wide-stance slalom-action steering. A combination that'll move you up, over and around with ease and agility.

Whether you call on a snowmobile for work or play, or both, you can always rely on Rupp. And for 1972, Rupp offers a choice of four great series. See them at your Rupp dealer today.

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It's Gifting Time!

675. Crochet this pants outfit. Tunic with or without sleeves, long pants and shorts. Shell pattern in sport yarn. New Sizes 10-16 incl. . . 50 cents

693. Long vest, scarf and cap. Use jiffy wool and big needles. Vest in New Sizes 10-16 incl.; hat and scarf fit all sizes. 50 cents

897. Knit on 2 needles, short or long boots or slippers. Note lacing. One flat piece for each. Use worsted. Sizes S, M, L included 50 cents

693

675

588

946

588. Loop or felt daisy-trim boot for both girls and boys. Knit in one straight piece on 2 needles. Sizes 1-10 years included. 50 cents

946. Instant crochet vest and tank top in new openwork design. Use worsted, No. 9 hook. Sizes 36-46 included, directions. 50 cents

7150. Romantic embroidery for bed-set, towels with cross-stitch roses and scrolls. Transfer; one 6½ x 12½" motif, two 6¼ x 13¼". . . . 50 cents

7115. Playful pets to embroider on crib or carriage cover. Or use as pictures. Nine 5½ x 6½-inch motifs, easy to follow directions. . . 50 cents

7150

745

7115

7251

797

897

534

706

7034

584

797. Delight a tot with fluffy yarn puppy. No forming — he's quick to make of knitting worsted in any color. Easy directions. 50 cents

534. Laced vest, tank top. Crochet both for girls, boys. Use big hook, worsted in 3 colors. Single, double crochet. Sizes 4-14 included. 50 cents

706. Crochet rug, seat cover for bath — or use rug in any other room. Choose 3 shades of a color. Rug 30", cover in rug cotton. 50 cents

7034. Quick knits. Use left over yarn for this complete wardrobe for an 11½-inch teen doll. Make a child happy! Easy directions. . . . 50 cents

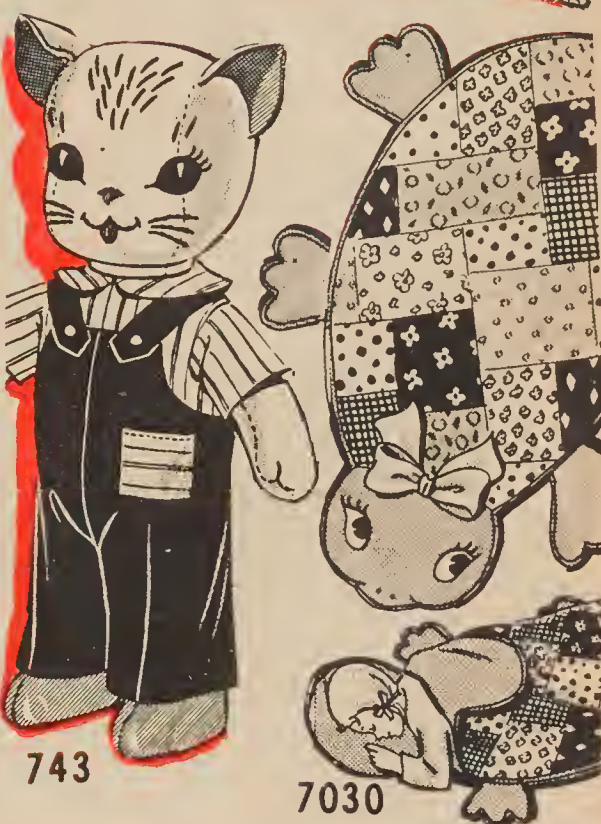
584. Cap and scarf set to crochet for both men and women. Use bulky yarn, No. 9 hook. Men, Women's Sizes S, M, L included, directions. 50 cents

7251. Crochet a bouquet of posy pot-holders of scraps! Use rug yarn for maximum protections. Two potholders, easy directions. 50 cents

745. Instant ponchos of single, double crochet. Child's Sizes 2-12; Teen, Misses' Sizes 14-18 included. Crochet directions. 50 cents

743. Big storybook kitten is fun to make. The perfect playmate for any youngster. Pattern for kitten; clothes; directions. 50 cents

7030. Snuggle into this cozy sleeping bag. Use felt for turtle's head, feet, features. Pattern pieces, directions 34 x 67" sleeping bag. 50 cents



743

7030

Northeast Living

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'ROUND the KITCHEN

by Alberta Shackelton



This month we feature some easy oven cooking and clean-up with foil, a few food budget stretchers, a fall dessert and salad, a popular cookie recipe, and some supermarket shopping aids for homemakers.

"FOILED" CORNED BEEF

- 3 to 4 pounds corned beef
- ¼ cup water
- 2 tablespoons pickling spice
- 1 small orange, sliced
- 1 onion, sliced
- 1 carrot, sliced
- 1 stalk celery with leaves

Follow any directions for handling beef on wrapper. If none are given, soak beef in water to cover for ½ hour, or longer if deeply corned. Remove from water and pat dry.

Put corned beef in center of a large sheet of aluminum foil placed on a shallow pan and pour over the ¼ cup water. Sprinkle with the spice and arrange orange slices and vegetables around the meat.

Bring long ends of foil up over meat and seal with a tight double fold. Seal other ends, turning them up so liquid cannot run out. Bake in a slow oven (300°) for four hours.

Because beef is so flavorful, cabbage and small whole potatoes or halved larger ones need only to be cooked until tender, then drained and salted.

ORANGE-SAUCE LAMB SHANKS

- 1 6 oz. can frozen orange juice, unthawed
- ¼ cup lemon juice
- ½ teaspoon salt
- ¼ cup butter
- 6 1-lb. lamb shanks

Combine orange concentrate, lemon juice, butter and salt; bring to boil and simmer 5 minutes. Place each shank on a piece of heavy-duty aluminum foil large enough to cover completely. Cup foil and pour sauce over each shank. Fold foil across top to make a packet with a double-fold seal and triple seal the ends.

Place packets on a shallow pan. Bake 1½ to 2 hours in a moderate

oven (325°), or until tender. To brown, open foil for last ½ hour of cooking. Serves 6.

APPLE STRUDEL STREUSEL

- Pastry mix for 8 or 9" 2-crust pie
- 6 to 7 cups thinly sliced tart apples
- ¾ to 1 cup sugar
- 1 teaspoon cinnamon or nutmeg
- 3 tablespoons lemon juice
- ½ cup brown sugar, packed
- ½ teaspoon cinnamon
- ¼ cup coarsely chopped nuts

Use half of the mix (prepared as for pie shell) to line bottom and sides of 8 or 9-inch square pan. Combine apples with mixture of cinnamon (or nutmeg or half each) and fill prepared pan. Sprinkle with lemon juice.

Sprinkle with Streusel Topping made by mixing remaining dry pastry mix with the brown sugar, cinnamon and chopped nuts. Bake 40 to 50 minutes in a moderately hot (400°) oven.

SUPREME PRUNE SALAD

- 1 package lemon flavored gelatine
- 1 cup hot water
- ½ cup sugar
- ½ cup diced orange sections
- 1½ cups diced celery
- 2 cups chopped, pitted plumped prunes
- ½ cup slivered toasted almonds
- Crisp chicory
- 1 8-oz. package cream cheese
- Slivered toasted almonds
- Pitted whole plumped prunes
- Mayonnaise or French dressing

Dissolve gelatine in hot water and stir in sugar until dissolved. Cool. Combine orange sections, celery, chopped prunes and slivered almonds; add to cooled gelatine. Pour into ring mold and chill until firm.

Unmold on crisp greens. Cut cream cheese into squares and stud with slivered almonds. Place around mold, interspersed with pitted whole prunes. Serves 8.

To Plump Prunes: Without cooking, cover a pound of prunes with 1 quart cold or hot water. Cover and

(Continued on next page)



Photo: Reynolds Metal Company

Corned beef is doubly delicious and twice as easy when cooked by this new carefree method.

let soak for at least 24 hours. The longer they soak, the plumper they get.

For soak and cook method, cover a pound of prunes with 1 quart water and soak, preferably overnight. Then cook by bringing to a quick boil and simmering 3 to 5 minutes, or until tender.

DATE-NUT DROPS

- 1 cup shortening (at least half butter)
- 2 cups light brown sugar, solidly packed
- 2 eggs
- ½ cup sour milk or buttermilk
- 3½ cups all-purpose flour
- 1 teaspoon salt
- 1 teaspoon baking soda
- ½ teaspoon baking powder
- 2 cups cut dates, medium coarseness
- 1 cup coarsely chopped nuts

Cream together until fluffy the shortening and brown sugar. Beat in the eggs. Sift together dry ingredients and add alternately with the sour milk. Blend in the dates and nuts.

Drop by teaspoonfuls onto a lightly greased baking sheet and bake in a moderate oven (375°), 12 to 15 minutes. Makes 6 to 8 dozen, depending on size.

I usually bake ⅓ to ½ of the mixture and freeze the remainder. The frozen dough comes in handy for a tray of quick-baked cookies for that unexpected guest. Keeps indefinitely in freezer.

Use Leftovers To Stretch Food Dollar

Every homemaker welcomes leftover ham because it can be used in a variety of economical, protein-rich main dishes. Recently these suggestions were received from Connecticut's Cooperative Extension Service.

Combine about 2 cups diced ham with 2 cups cooked peas in a sauce of condensed cream of mushroom soup thinned with about 1 cup milk; serve shortcake-style over biscuits.

Layer thinly sliced potatoes with slices of ham and a sliced onion or two, if desired, for scalloped potatoes.

Make a hearty split pea soup, using the ham bone (leave a little meat on it), a diced carrot or two, ½ cup chopped celery and leaves (pureed if you wish) and serve with herbed croutons or crackers. A waldorf salad and gingerbread with whipped cream or a tossed vegetable salad, muffins and rosy baked apples go well with the soup.

Chopped ham may be made into a ham loaf or into ham patties which are lightly browned in hot fat. Finely chopped ham can make a delicious souffle, and a sandwich mixture of chopped ham and pickles or relish on rye, white or whole wheat bread will be just right for the school lunch.

Brown-In-Bag Oven Cooking

If you like evenly browned, easily basted, juicy meats without the usual oven clean-up, you will enjoy the see-through, Brown-In Bags for oven cooking (not useable for broiler or grill cooking). Packed 10 to a package with twist ties and cooking directions, they can be used for a small chicken, ham slice, 3 to 4-lb. turkey loaf or roast, pork roast or short ribs, meat loaf or fish.

Unit Pricing*

A number of retail food chains around the country are clearly marking their products with price per unit, such as per pound, pint, quart or ounce, in addition to the price of the product. This unit pricing (alias dual pricing, compara-buy, Tru-Price, etc.) does not tell anything about quality, taste or nutritional value, but it does point the way to the lowest cost item. Look for unit-priced items in your markets.

Dating Food Products*

Shoppers find it difficult to determine quality and freshness of foods inside packages. Dates do occur on many food packages to indicate freshness, but they appear as codes known only to food processors, handlers and retailers.

Bills have been introduced in city, state and federal legislatures during the past year requiring packaged perishable foods to be marked with an easily readable date, after which the product should not be sold. Several retail food chains have already begun this "open dating," but more study is needed before its general adoption. Look for dated packaged food products in your markets.

Instant Nonfat Dry Milk*

Check the package label before buying nonfat dry milk. Buy the one with added vitamins A and D, and you'll get all the protein, vitamins and minerals of fresh milk, with about half the calories. For best quality, look for words "extra grade"—this has met stringent requirements for all steps in production.

Serve nonfat dry milk reconstituted alone or mixed with regular whole milk. For best taste, prepare day before and keep refrigerated at 40° F. or lower and serve cold. Nonfat dry milk is suitable for cooking and baking; it can also be whipped for a low-calorie dessert topping.

*Focus on Food Markets, Consumer Education, N. Y. State Cooperative Extension, Cornell University, 12/21/70; 5/18/70; 4/19/71.



Make POMANDERS for Gifts

Making Pomanders is something the children will enjoy doing, and they make delightful Christmas gifts for their teachers, whether in school, church, or for music. All you need is the same number of oranges as you wish gifts, some orris root, whole cloves, and ground cinnamon.

To make the pomanders, push cloves into oranges as close as you can possibly get them. When you have finished that part of the job, not a bit of the fruit should be visible. Now roll the clove-studded oranges in a mixture of equal parts ground cinnamon and orris root, patting in as much as will stick to the fruit. Wrap in tissue or any soft paper (each one separate) and store for several weeks.

Then remove paper, shake off any powder that wasn't absorbed, and the spicy-smelling pomanders are ready to wrap attractively as gifts. They can be used in dresser drawers or hung by a ribbon in closets. They give a wonderfully sweet, pungent odor to the clothing in whatever place it is stored. And they're so much fun to make that the youngsters will probably keep thinking of others to add to their gift list. Louise Price Bell



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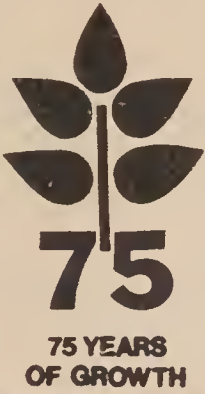
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GARDEN TALK

by Doc and Katy Abraham



Poison Ivy Again

A Forestry Specialist reprimanded us for recommending old motor oil as a control for poison ivy. He said the information we gave was "misleading, since old oil will make the ground sterile for years."

We've used a spray of motor oil on poison ivy and can't see where it has rendered the soil sterile. Naturally, if large amounts of gas or oil are dumped on the ground, it will make the soil "grow-less" for some time, but so will many chemicals.

The writer suggested we use weed-killers such as Amino triazole 2,4,5-T and/or 2,4-D which "can be used with reasonable safety very close to desirable plants in the garden."

Recommending chemical weed-killers for the home gardener is something we shy away from. Why? Because almost weekly our mail brings letters from folks who have ruined plants from misuse of weed-killers. It's not that weedkillers are not effective—they are, but they must be used with caution. For the farmer, they are a handy tool, almost indispensable, but the home gardener can do without them.

If you want to use a weedkiller for poison ivy, we don't recommend spraying. You can place a tip of the vine in a bottle of the liquid, dab it on with a brush, or use a sprinkling can. We sprinkle motor oil on the surface of poison ivy leaves, and it does the job for us.

The best weedkiller for the home garden is an implement about 5 feet long, having a wooden handle and a piece of metal on the end. It's called a hoe.

Still Time To Sow Grass

Is it too late to sow grass seed and make lawns? It's never too late! Some of the best lawns we've put in were made in November or December. Even if the seed does not germinate, it will lie in the ground during the winter. When spring rains and warm weather roll around, the seed is ready to take off. If you wait until spring to do the sowing, you may lose a month or two before you can get on the soil.

Incidentally, with the advent of new types of perennial ryegrasses, we're giving these a second look. Some perennial ryegrasses on the market resemble bluegrass as far as leaf texture and position are concerned. These ryegrasses are easy to start and do look much of the time about the same as a bluegrass turf.

In all fairness, it should be mentioned that you can't make a ryegrass spread by rhizomes (rootstocks) because it's a bunch grass. Also, none of the ryegrasses mow as cleanly as does bluegrass. The leaf tips tend to fray and get "gray hair" like you see when a turf is moved with dull blades. There's some difference in seasonal appearance too.

The main point, however, is that some perennial ryegrasses are really as fine textured as are bluegrasses. Also, they blend much better with bluegrass-fescue turf than does an-

nual rye, which turns quite coarse if it survives beyond one growing season.

Annual ryegrass is more aggressive when used in a mixture and prevents bluegrass from becoming established. Good seedsmen have no objection to using 10 to 20 percent perennial ryegrass in a seeding mixture to provide quick cover that bluegrass will not, but they recommend that you avoid annual ryegrass in a mixture.

AA Garden Clinic

A reader writes, "Every fall and every spring we get a crop of mushrooms on our lawn, even into November. What can be done to stop them?"

Answer—I doubt if there is any reliable method for getting rid of mushroom growths in lawns. Most gardeners are content to pull the growths and toss them away. Some use a mixture of household bleach, 1 cup to 2 quarts of water, and this is drenched over areas, such as fairy rings.

We've been told that Lysol also makes a good control for mushrooms. First, loosen the fairy rings with a two-pronged garden tool. Then mix 5 tablespoons Lysol to 10 quarts of water and pour over the fairy rings. It takes several bucketsful to do the job; after two or three applications, you can remove the dead tops and sow some grass seed.

VISITING

with

Home Editor Augusta Chapman

Did you notice the extra space our former Home Department enjoyed last month in the new "Northeast Living" section of AMERICAN AGRICULTURIST? This is something we have planned and worked toward for many months, and I'm thrilled that we finally made the move. For one thing, I hope to have room to "visit" with you more often.

I hope you all had a nice summer. It was a real good one for us. Walt and I are enthusiastic "campers," and I believe we enjoyed our Shasta travel trailer more this year than ever before. You know there are some advantages to so-called "middle age" when your children are grown and home responsibilities are fewer than when you're young.

We are very fortunate in having a beautiful State Park (Robert H. Treman or "Enfield" to those of us who have lived in this area for quite a while) just a few miles from our home and also from Ithaca, New York, where we work. Since there's no limit on how long one can camp in a state park before the July 4th weekend, we spent the entire month of June at Enfield. Even the weather man cooperated and gave us better-than-usual weather all the time we were there.

Then for vacation, we had a delightful week at Cole's Creek State Park on the St. Lawrence River. We were lucky to get a site right on the water where we could beach our canoe a few yards from the trailer and see the ships going up and down the Seaway Channel. With binoculars we could usually make out their names and countries. Never before have we seen so many ocean-going ships from foreign ports.

Don't Miss Helen's

From there we went to Maine and stayed at a private park on Route 1 north of Ellsworth. We wanted to get somewhere near Machias, so we could go to Helen's Restaurant. If you're ever in that area, don't miss eating at Helen's. From the outside, it doesn't look like anything special, but the food is exactly that!

Of course one expects good seafood along the Maine Coast, and Helen's is right up there among the best, but we especially recommend the steaks and homemade pies. I thought the best coconut cream pie I'd ever tasted was at the Crouching Lion Inn on the Island of Oahu, but Helen's is just as good.

Eating wasn't the only thing we enjoyed in Maine—we visited Acadia National Park, Lubec (our eastern-most village), Quoddy Head Lighthouse, and the Roosevelt summer cottage on Campobello Island. Now as I write this column for our October issue, we've been home a month and have settled again into our comfortable, daily routine.

A Recipe To Try

My friend "Flossie" Wickham, wife of Don J. Wickham, New York State's Commissioner of Agriculture and Markets, sent me the following recipe for Peanut Butter Pie. She got it from Simonsen's Restaurant in Fort Pierce, Florida, and says, "Simonsen's is a very old and delightful place to eat, famous for its seafood and peanut butter pie. The pie is a must for those eating there for the first time."

Here's the recipe for you to try at home if you're not planning a trip to Florida soon.

SIMONSEN'S PEANUT BUTTER PIE

- 1 baked pie shell
- 1 cup confectioners' sugar
- ½ cup peanut butter
- ¼ cup cornstarch
- ¾ cup sugar
- ¼ teaspoon salt
- 2 cups milk, scalded
- 3 egg yolks, beaten
- ¼ tsp. vanilla extract
- 3 egg whites for meringue plus
- 6 tablespoons sugar

Combine confectioners' sugar and peanut butter; blend until the appearance of biscuit mix. Spread half of this mixture on pie shell.

Combine cornstarch, sugar and salt; add scalded milk and mix well. Pour small amount over beaten egg yolks and mix well; then return to milk mixture. Cook in top of double boiler until mixture thickens. Add butter and vanilla and pour into prepared pie shell.

Top with meringue made from beaten egg whites. Sprinkle remainder of peanut butter mixture over meringue. Bake at 325°F. until meringue is brown.

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American Agriculturist, October, 1971

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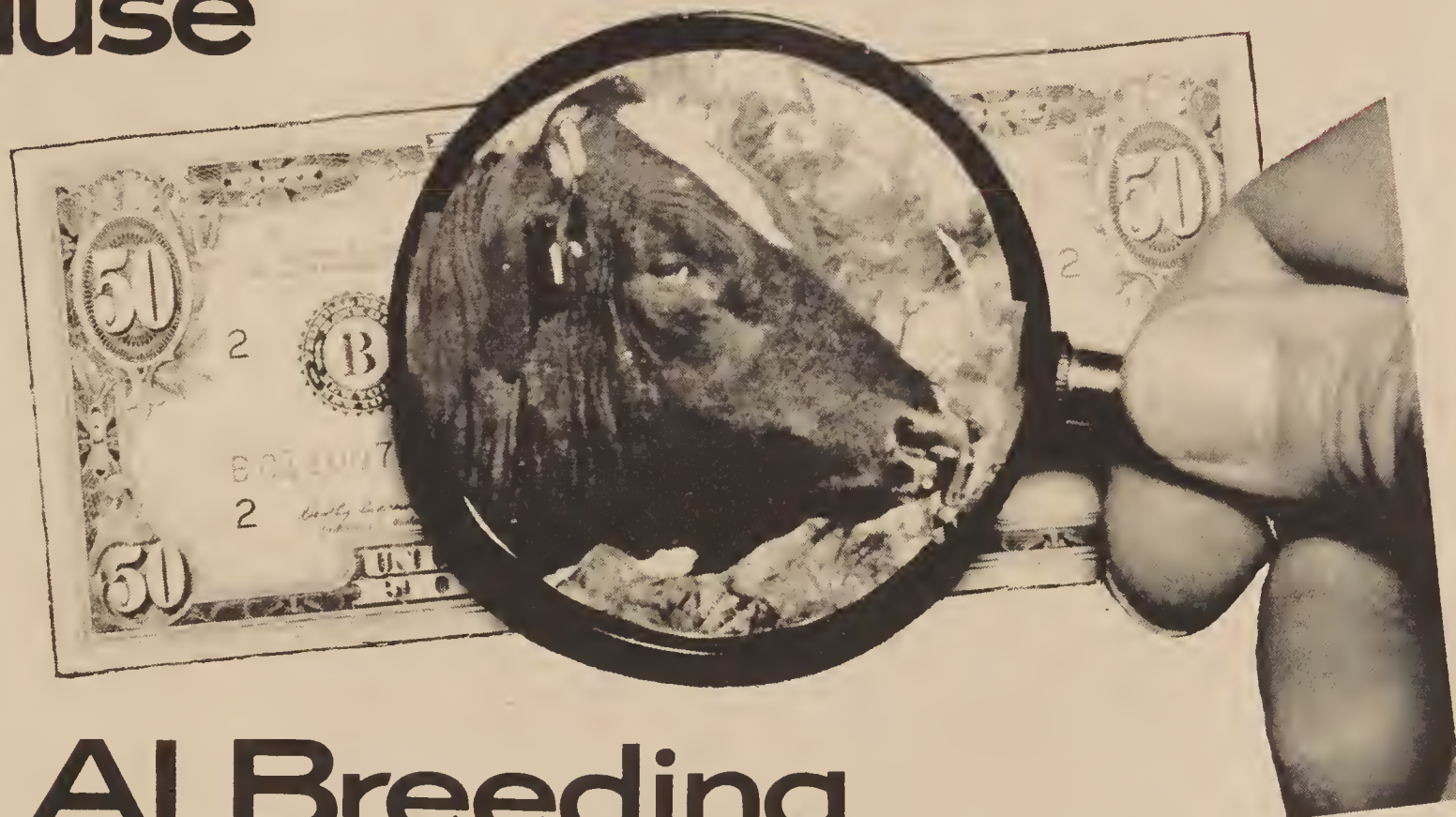
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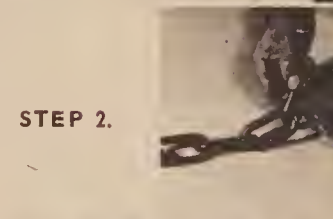
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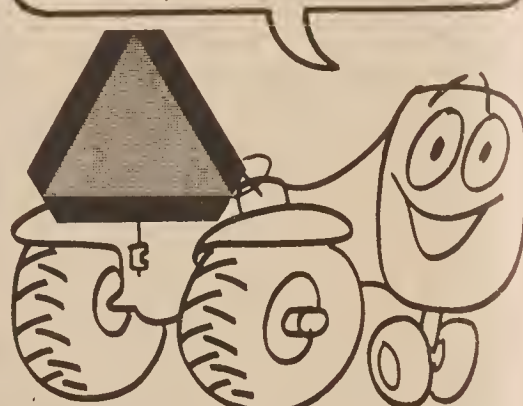
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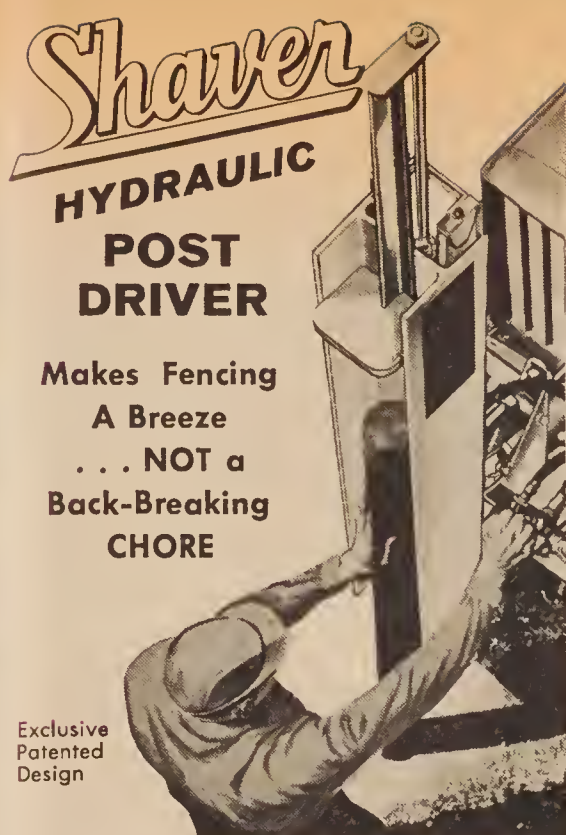
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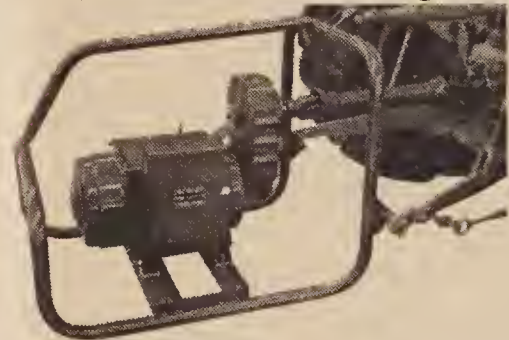
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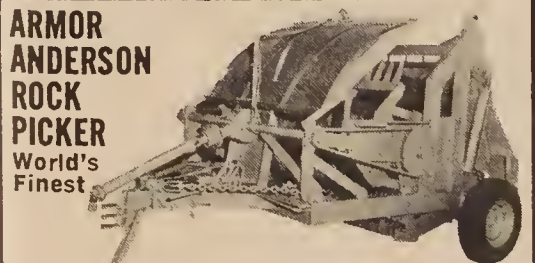
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Oct. 2-3 - Grand Finals of Rabbit and Sanctioned Cavie Show, Fairgrounds, Syracuse, N.Y.

Oct. 2-3 - Fall Foliage Festival, Warner, N.H.

Oct. 3-9 - National 4-H Week

Oct. 7 - Conservation Leaders Forum, Cornell University, Ithaca, N.Y.

Oct. 7-16 - National Apple Week

Oct. 9 - NYS Shorthorn Association Sale, Fairgrounds, Canandaigua, N.Y.

Oct. 10-14 - Annual Convention, World Federation of Charolais, Dallas, Tex.

Oct. 11 - Columbus Day

Oct. 12-13 - NYS 4-H Agents Association Annual Meeting, Cornell University, Ithaca, N.Y.

Oct. 12-14 - Forest Recreation Symposium, State University College of Forestry, Syracuse, N.Y.

Oct. 12-15 - National FFA Convention, Kansas City, Mo.

Oct. 13-14 - Dairylea Cooperative Annual Meeting, Concord Hotel, Kiamesha Lake, N.Y.

Oct. 13-15 - Cooperative Extension Conference, Ithaca, N.Y.

Oct. 15 - Feeder Pig Sale, Caledonia, N.Y.

Oct. 16 - Feeder Cattle Sale, Pike, N.Y.

Oct. 19-20 - Annual National Meeting on Poultry Condemnations, Convention Hall, Ocean City, Md.

Oct. 20-21 - Annual Meeting, NYS Federation of Home Bureaus, Sheraton Syracuse, Thruway Exit 37, Syracuse, N.Y.

Oct. 21-22 - Agway Stockholders Annual Meeting, Syracuse, N.Y.

Oct. 22 - New England Holstein-Friesian Association 50th Anniversary Meeting, Wethersfield, Conn.

Oct. 22 - Feeder Cattle Sale, Dryden, N.Y.

Oct. 23 - Feeder Cattle Sale, Caledonia, N.Y.

Oct. 25 - Veterans Day

Oct. 25-28 - 99th Annual Convention, Pennsylvania State Grange, Somerset, Pa.

Oct. 25-28 - 99th Annual Session, New York State Grange, Lake Placid, N.Y.

Oct. 30 - Feeder Cattle Sale, Bath, N.Y.

Nov. 2 - Feeder Cattle Sale, Chatham, N.Y.

Nov. 2-4 - Cornell Nutrition Conference, Statler Hilton Hotel, Buffalo, N.Y.

Nov. 5-6 - Eastern Artificial Insemination Cooperative Annual Meeting, Syracuse, N.Y.

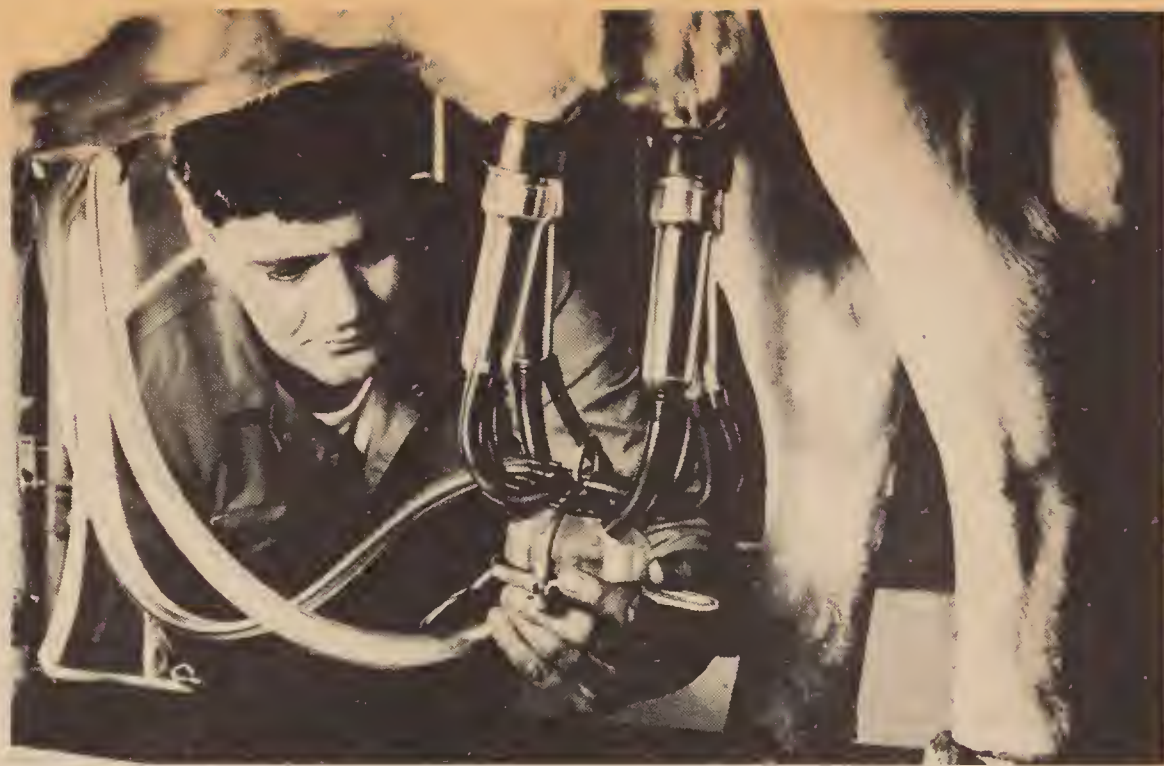
Nov. 6 - Rockingham Craftsmen's Fair, Town Hall, Rt. 111, Kingston, N.H.

Nov. 6-13 - Keystone International Livestock Exposition (formerly Pennsylvania Livestock Exposition), Harrisburg, Pa.

Nov. 8-10 - New York Farm Bureau Annual Meeting, Ellenville, N.Y.

Nov. 8-11 - 33rd Annual NYS Pesticide Conference, Cornell University, Ithaca, N.Y.

Nov. 8-16 - 105th Annual Session, National Grange, Charleston, W.Va.



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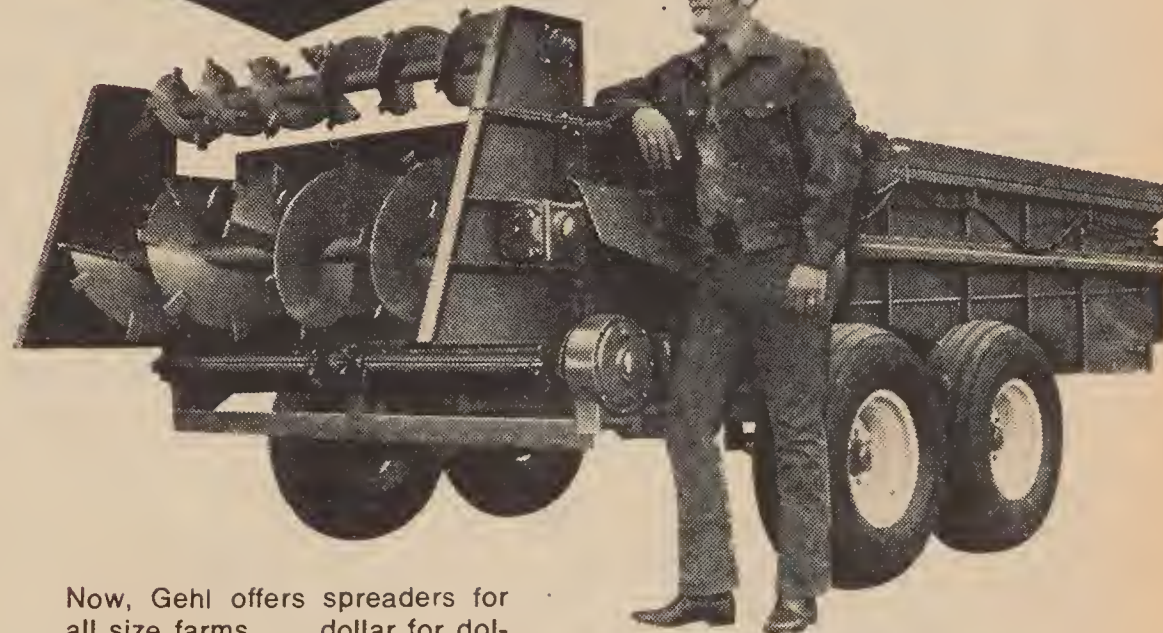


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38-6

People on vacation see what they want to see. In addition to the mountains, trout streams, beaches and forests, some of us see farms, ranches, cattle, horses and machinery. It's fascinating to take a look at how the other fellow runs his business under his particular set of conditions . . . soil, topography, rainfall and markets.

Anyone thinking about such things cannot escape the conclusion that one of the most spectacular things to be seen in this country is the agricultural plant — the production end of the food and fiber for this nation. We see large factories and processing plants costing millions, and handling great quantities of materials as we pass through or by the cities, but then for miles and miles we see a series of production units that in the aggregate are the wonder of the world.

Less Change

It would be fair to say that the dairy areas of Wisconsin and Minnesota surprised us in one aspect. Herd size does not seem to have increased as much as it has in New York. The switch to large free-stall barns has not been nearly as rapid as here at home.

Some of us who farm rolling land . . . and know the problems of controlling washing, and of running machines on the slopes . . . just can't believe the way the dryland wheat farmers operate in eastern Washington. We can handle a short steep slope, but not a whole big hill! Of course, with a rainfall of 13-15 inches a year, washing isn't much of a concern. But they have fields of hundreds of acres, including right up over great hills that are steeper than we could even run a tractor across.

The answer is that they do all their fitting and planting with crawler tractors. The stubble is worked with a field cultivator in the fall, leaving the stubble pretty much on top to hold the moisture and the soil. In spring, the fertilizer is broadcast and disced in. Thirty or forty pounds of nitrogen is the application. As needed, a rodding machine some 40 feet wide is pulled over the fields to control the weeds. By late August or early September, the wheat is sowed (hard red winter wheat).

Half the ground is therefore fallow while half is growing wheat. When it comes harvest time in August, the big combines are wheeled out. They have self-leveling devices, which accounts for their ability to go over those unbelievable slopes.

Grain Harvest

Across Minnesota and North Dakota, we had grown accustomed to seeing the grain cut with a self-propelled windrower and left for a few days while the straw and any weeds and green stuff dried out. Then a combine with a pick-up head attachment would come along and thresh the grain out.

Naturally, with everything dried out, the stuff went through the machines easily. A lot of small, old pull-type combines were doing the job perfectly adequately on this windrowed grain. Of course, there



Gayway Farm Notes

by HAROLD HAWLEY

were self-propelled rigs too, but not the great big jobs with direct-cut heads seen in Montana, Idaho and Washington.

Wherever it was available . . . either from sources way upstream, or from deep wells . . . irrigation water was being applied. This makes possible a whole new kind of farming. Alfalfa, sugar beets, potatoes, grain and sometimes corn were grown, as well as irrigated valley pasture for beef and dairy animals. The hay was baled, stacked in great piles, either for feeding to their own cattle or for sale to some rancher who didn't have enough hay ground to match his pasture acreage.

Grazing

Wherever the land was too rough, too dry or too forested for crops, cattle were harvesting the vegetation. This ranged from the thick, stem-cured native grasses on some of the best range and forest land to some mighty thin stands of poor-quality grasses and weeds on some of the drier, poorer, rockier land.

As you would expect, thousands of individual farmers had decided how best to use the land they had. Some had seen a buck to be made in a variety of different enterprises than any mentioned so far. Would you believe 20 acres of turkeys? Whole fields were pretty well covered with white turkeys in western Minnesota. Or how about a 40-acre patch of dill?

Some irrigated valleys with a canning factory outlet featured fields of sweet corn, tomatoes or pole beans. Out across Minnesota and North Dakota, an occasional farmer had substantial acreages of sunflowers grown like corn or soybeans. We assume this crop produced birdseed.

We had expected to see more dairy cattle on the lush pastures in western Washington and Oregon. There must have been a lot in areas we didn't see to supply the needs of the booming West Coast cities, but we didn't see all that many.

ORDERLY MARKETING

Probably it's imagination, but it seemed to us that farmers and ranchers are more interested in the condition of their crops and livestock than in their price. Sure, everyone knows what his commodity is selling for, and reacts according to his judgment as to whether this is high or low. At the same time, however, if the crop out there in his fields looks good, he tends to be optimistic. Let the crop be poor, regardless of price, and he is depressed.

We were struck by this attitude in several conversations, and I guess it's no new thing. All this in spite of the fact that a generally shorter

crop or fewer livestock would in many cases bring more net income. Just being an individual farmer with a poor crop, or some poor-doing livestock, though, doesn't help the market price any . . . and does hurt the total receipts that the farmer can expect.

Conflict

It's this conflict . . . each of us wanting to sell as much as we can . . . that keeps us as an industry (or as groups of farmers) from being willing to regulate our production to fit the needs of the market. If we ever learn to, everyone will benefit. Once we bring ourselves to be willing to accept the discipline of marketing only what the market needs, with the knowledge that other producers will likewise control their sales, we will finally have arrived at a better day.

We all cherish our individual liberties, and our right to produce and sell as much as we choose. There are other liberties that are just as important. Liberty from debt might be valued almost as highly as any. Swapping a little loss of individual freedom for a little better total return, and a little greater freedom from worry about debts, might not be a bad deal!

WESTERN LUMBER

The lumber industry in Washington and Oregon staggers the imagination. All one morning we drove along a highway and met loaded tractor-trailer logging trucks at the rate of 20 trucks an hour! Just as we had raised the question whether we really could continue to use so much water for irrigation indefinitely, so we wondered if we could continue to cut so much lumber forever. It was reassuring to find out that as the land is cut over it is reforested. They practice clear-cutting.

Forever Producing

One happy note . . . unlike our stupid policy here in New York of having a forest preserve in a forever wild-forever rotting condition . . . the national forests are logged over, reseeded and thus not only produce millions of board feet of lumber annually, but also provide a much better game habitat. Hopefully, we may someday change our policy to improve our forest preserve by controlled management.

Moist air blows in off the Pacific Ocean, moves up the slopes of the coastal mountains, is cooled and drops its water on the west slopes of the mountains. This creates the environment for the growth of trees.

A couple of areas have special conditions to the point that they get 140-150 inches of rain a year! These rain forests in some respects resemble

the rain forests of the tropics.

We were out in one and it is truly an unforgettable experience. Trees 5 or 6 feet in diameter are common, with occasional ones 8-10 feet through. They reach up 200, and occasionally 250 feet. Moisture is high enough to cause moss growth on them, with some limbs having not only moss on top, but a foot or more hanging down.

Recycled

When a big tree falls down, it eventually gets covered with moss and ferns, needles and cones. As it rots and the material on top of it accumulates, new seedlings grow on it. It's therefore sometimes possible to see a whole colonnade of trees feeding and growing from an old trunk, and later with the roots reaching down to the soil. Years and years later, when the original nurse log is completely rotted away, many of the big old trees which grew out of it will have a hollow place between the roots where the log used to be.

Just as in farming, almost everything about the lumber industry has become mechanized and specialized, with the industry concentrated into fewer and fewer businesses that are more efficient than the thousands of small logger-sawmill operations of the past.

Sources

Lumber companies may buy standing timber from the government, or from private owners, or cut that in their own forests. They may haul logs in from great distances, with certain sizes or species of logs going to specialized mills set up to handle them. Plywood, shakes (shingles) and sawed lumber usually come from separate sawmills.

No one would believe piles of logs stacked 40 feet high and covering acres and acres of ground. Equally spectacular are the log rafts anchored on rivers and lakes until the mills can handle them.

HIGHWAYS

It's impossible to escape the conclusion that the New York Thruway Authority spends more money per mile to mow its right of way than do many other states. Pennsylvania has done away with both the need for mowing and spraying on hundreds of miles of right of way with its plantings of crownvetch.

Many states mow a swath next to the highway and let the rest grow. A herbicide spray controls some of the weeds. This isn't half as bad as it sounds and is quite acceptable.

Alfalfa has been established on the right of way along hundreds of miles in Minnesota and Montana. This hay is cut and baled . . . thus keeping the right of way cut without cost.

We're championing no special way. The business of maintaining a lawn a hundred or more feet wide from one end of our State to the other is a tremendous expense . . . one which must be passed on to the users of the toll road. After seeing a lot of other methods, we have the notion that a long hard look should be taken at the methods used and the costs involved in the care of our Thruway right of way.

American Agriculturist, October, 1971

SERVICE BUREAU

by M. A. Parsons

DECEPTIVE PRACTICES

In our May issue, we noted that Alexander Sales Corporation of Mt. Vernon, New York, had filed for relief under Chapter XI of the Federal Bankruptcy Law.

In July we received notice that Attorney General Louis J. Lefkowitz had obtained an order in Supreme Court, New York County, which restrains this mail order house from false advertising, accepting orders with payment for products when they are not available for prompt shipment, and ignoring complaints and requests for refunds. Also named in the order were American Family Book Services, Crescent House, Empire LaVive, and the owner, Emanuel Piller, all of the Mount Vernon address.

The order provides that Alexander, under any of its names, will not (a) advertise merchandise it cannot ship within thirty days, (b) delay the making of refunds longer than thirty days, (c) ship merchandise after the order has been cancelled, (d) delay the cancellation of charges to customers' charge accounts longer than thirty days from receipt of the request for such cancellation and, where appropriate, the return of the merchandise, and, (e) use the name John Alexander in its advertisements.

The Attorney General noted that the company was directed by the court to each week fill orders or refund payments for orders placed before the Chapter XI proceeding, in the amount of \$2,000. The Supreme Court Justice also directed that the firm establish a fund of \$2,500 to assure refunds to all customers entitled to them. The money will be placed in an interest-bearing escrow account under the supervision of the Attorney General and whatever is left after refunds are made will be returned to the firm on June 28, 1972.

RECORD CLUB

"Six months ago, I answered an ad in a well-known magazine for a record club. I sent a check for payment in full for a stereo component. To this day I have never received the stereo. I have written and three times they sent a card saying their inventory was low and would I please wait... then nothing.

"I have always belonged to record clubs and had no trouble. Hope you can help."

After getting our subscriber's account number with Capitol Record Club, we wrote them about his complaint. In less than a month, he received the stereo phonograph.

When writing a club or a mail order company with which you carry an account, always be sure to give them your account number to facilitate their checking. It is very important that all facts, such as dates, amounts, catalog numbers, etc. be given as concisely as possible when writing a company about a complaint.

Help When Needed!

Local agent Gerald Stevens of Moravia, N.Y. delivers North American benefits.



\$6150.00 payment to Mrs. Harold Compton.

Mr. Compton of Moravia, N.Y. lost his life when crushed against a beam as he backed his tractor into a shed. The Comptons carried North American policies since 1965 then added more protection in 1969. Because they kept them renewed over the years they built up \$1650.00 additional loss of life benefits. The Comptons need every bit of help to continue operating their dairy farm.

\$1650 payment to Arbon Hatfield.

Repairing a water line near the barn, Mr. Hatfield of Moravia, N.Y. was buried when the ditch caved in. He suffered torn ligaments and tendons of the knee and was immediately hospitalized for sixteen days. Later he went back in for another ten days for a knee operation. Although he carried other insurance his North American protection helped to pay his medical bills in full and provide income to pay for extra help while he couldn't work.



OTHER CLAIMS PAID — — — a friend's name may be in this list.

Lois G. Coombes, Belfast, N.Y.\$ 806.03	Geraldine Hazen, Brushton, N.Y.\$1120.00	John Remmers, Jr., Schoharie, N.Y. ...\$ 696.42
Ran over by cows—inj. legs	Automobile acc.—injured back	Caught in PTO—broke arm
Ernestine Green, Black Creek, N.Y. 525.56	Marvin Richardson, Bergen, N.Y. 218.58	Helen P. Wade, Waterloo, N.Y. 568.35
Auto accident—multiple injuries	Caught in corn picker—broke fingers	Tank cover fell—inj. hand
Richard E. Baker, Friendship, N.Y. 211.00	John Gardner, Batavia, N.Y. 809.29	John Sawieski, Prattsburg, N.Y. 379.12
Caught in chain—injured hand	Motorcycle accident—broke ribs	Caught in grader chain—injured hand
Elwyn M. Berg, Conklin, N.Y. 146.10	Lillian Starr, Dec'd., Herkimer, N.Y. 1550.00	John Helgeson, Greenwood, N.Y. 779.57
Fell from ladder—head injury	Tractor accident—loss of life	Caught in grinder—inj. hand
Harry R. Ackley, Gowanda, N.Y. 1070.00	Ralph E. Miller, Middleville, N.Y. 388.91	B. Andruski, Jr., Cutchogue, L.I., N.Y. 637.15
Bale fell from mow—inj. back	Auto accident—broke collarbone	Fell from boat, hit by prop.—inj. head
Wilson Horn, Cato, N.Y. 2223.87	Alexander Peer, Watertown, N.Y. 225.00	Donald E. Williams, Nichols, N.Y. 1120.00
Baler tongue caught leg—broke leg	Getting off tractor—inj. knee	Tree fell—broke shoulder
Clarence W. Dennis, Moravia, N.Y. 348.56	Blanche LaLonde, Philadelphia, N.Y. 1300.00	Ralph G. Cator, Palmyra, N.Y. 1169.16
Roof collapsed—broke hip	Fell off plank—broke knee	Slipped off truck—broke ribs
David Bogert, Sherman, N.Y. 1097.14	David Wendt, Constableville, N.Y. 2535.00	Douglas W. Allard, Newark, N.Y. 726.48
Motorcycle accident—broke leg	Caught in ensilage blower—loss of leg	Auto accident—multi. injuries
Earl Stilwell, Sinclairville, N.Y. 1385.50	Craig Spooner, Brookfield, N.Y. 337.50	Walter Dominick, Arcade, N.Y. 681.55
Auto accident—multi. injuries	Stepped on by cow—broke foot	Slipped on wet floor—internal injury
Ralph W. Jilson, Lowman, N.Y. 202.00	Gerald P. Crowley, Rochester, N.Y. 760.00	Merrill B. Neal, Little Marsh, Pa. 255.00
Caught in tailgate—inj. finger	Auto acc.—internal injuries	Lawnmower tipped over—inj. hand
Harry S. Smith, Bainbridge, N.Y. 1085.00	William J. Wojturski, Amsterdam, N.Y. 994.04	David M. Weaver, Roaring Branch, Pa. 2240.00
Fell—injured forehead and eye	Fell off truck—broke collarbone	Trampled by cow—broke leg
Thomas W. VanPatten, Preble, N.Y. 566.32	Louise E. Jayne, Dec'd., Geneva, N.Y. 4200.00	Michael Urda, Union Dale, Pa. 557.86
Fell on ashtray—cut hand	Auto accident—loss of life	Auto accident—multi. injuries
Richard L. Mattice, Jr., Hobart, N.Y. 102.58	Alfred S. Rhinehart, Walden, N.Y. 514.99	Stanley Stoy, Lambertville, N.J. 324.68
Caught in lawn mower—inj. foot	Crushed by cow—broke arm	Caught in steering wheel—broke arm
Harold Lake, Dec'd., Downsville, N.Y. 3900.00	Vernon L. Bowen, Holley, N.Y. 347.81	Edith Y. Snow, Bernardston, Mass. 1071.58
Truck, car accident—loss of life	Blade slipped off loader—broke toe	Kicked by cow—inj. leg
John G. Spengler, North Collins, N.Y. 307.29	Victor P. Cysz, Jr., Parish, N.Y. 205.68	Charles Gunther, Farmington, Maine ... 263.57
Caught in feeder—cut hand	Auto accident—inj. knee	Hunting acc.—gunshot wounds
Jerome Ulrich, Springville, N.Y. 357.80	Hale Dingman, Jr., Cherry Valley, N.Y. 1110.17	Jeannie Benoit, St. Albans, Vt. 408.56
Fell in barn—broke wrist	Auto accident—multi. injuries	Kicked by cow—injured leg
Junior Paul Tremblay, Bombay, N.Y. 266.19	Bower E. Noble, Canton, N.Y. 265.89	Sanford S. Witherell, Shoreham, Vt. 269.63
Spreader tongue fell—broke toe	J. Joannette, Dec'd., No. Lawrence, N.Y. 3450.00	Slipped on stairs—broke ankle
	Tractor accident—loss of life	

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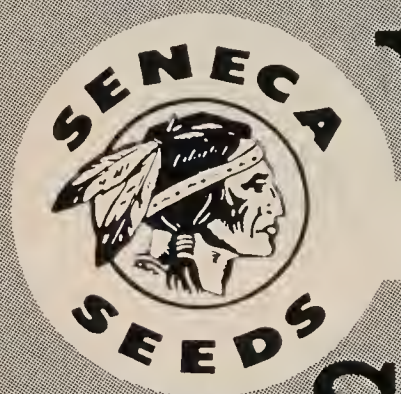
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That's it. No ifs, ands or buts.

We can offer this warranty because we know that wood lasts longer. We've known it for more than 70 years. And we still make the sides and bottoms of every New Idea spreader of clear yellow pine — treated with water-repellent Penta, then sprayed with hot paint.

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Coldwater, Ohio 45828

New Idea Spreaders

The brand to buy





**"Agway showed me
how to get 10% more milk and
cut the feed bill by 33%."**

Jack King, Church Hill, Md.

Twenty-nine-year-old Jack King became an Agway customer when Agway Enterprise Salesman Dick Sowieralski suggested a change in his feeding program that would produce more milk rather than excess body fat. Result: the herd average climbed from 12,800 lbs. to better than 14,000, and the cost of feed dropped a third. The good work started by Dick Sowieralski has been continued by Enterprise Salesman Frank O'Day.

The key to all this was a decision to have Agway test the forage produced on the farm and then submit the findings to Agway's computer center for evaluation and a recommendation. The resulting Agway Dairy Feeding Profile report showed Mr. King how to adjust feed intake

to bring the protein and energy into better balance.

"I like working with Agway salesmen," says Mr. King. "These people have had the kind of practical experience that builds your confidence in them. They want to help as well as sell. When they recommend a program, they follow through to make sure it works."

There is an Agway Enterprise Salesman available in your area to work closely with you in making your farming operation more profitable. To get in touch, call your Agway store or representative.

Farm Enterprise Service

AGWAY

In addition to the Agway Dairy Feeding Profile, Mr. King uses the Financial Planning Profile to keep a close check on operations and assist in long-range planning.

Agway Topper, delivered in bulk, balances the ration for the 150-cow King herd. Frank O'Day and Jack King examine a handful of this 33 $\frac{1}{3}$ % protein feed.





For The
*Northeast
Farmer*

Ellis Room

NOVEMBER 1971

American Agriculturist

and the
RURAL NEW YORKER

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"When a computer tells me I could be milking 700 cows, I listen!"

—William Moore, Chatham, Pa.

The Agway computer makes many of the calculations on which William Moore bases management decisions. The soundness of these decisions has made Moore's 800-acre operation one of the most successful in Pennsylvania.

Mr. Moore has two 140-cow herds, with a third in the making. He is well on his way toward the 700-cow level. Herds are built from heifers raised on the Moore farm.

Each herd is in charge of a manager whose sole responsibility is that herd. Bonuses are paid when milk production exceeds 12,000 pounds. One herd is now at 15,100 pounds and the other is at 13,400. A second bonus is earned when bacteria count drops below an agreed-upon norm. All decisions regarding feeding, breeding, herd health and other matters are made by the herd managers. "I don't interfere," says Mr. Moore. "If they have problems they come to me and we work them out together."

Agway Enterprise Salesman Earl Harnish has worked with Mr. Moore for more than five years and serves as his unofficial technical advisor. Fast, complete reports from the Agway computer help guide planning. They also keep a finger on day-to-day happenings. For example, the Dairy Feeding Profile, pre-

pared monthly by the computer, showed that cows were being overfed at a cost of \$1.75 per cow per month. Adjusting the formula immediately saved about \$5800 per year.

Crops are the responsibility of another team of managers who also work closely with Harnish to get top yields of corn silage and haylage. Timing, weed and pest control, and precise records are keys to their success.

"The bigger you get," says Mr. Moore, "the more you have to rely on the technical knowledge of a man like Earl Harnish. And all five of our full-time employees are college trained. With good people to manage each unit, there's no real limit to the number of units that can be assembled. The computer says we could have as many as five with our present resources."

Dedicated people with knowledge and experience to help members grow and prosper are one of the biggest assets you have in Agway. The Agway Enterprise Salesman is the link to this Farm Enterprise resource.

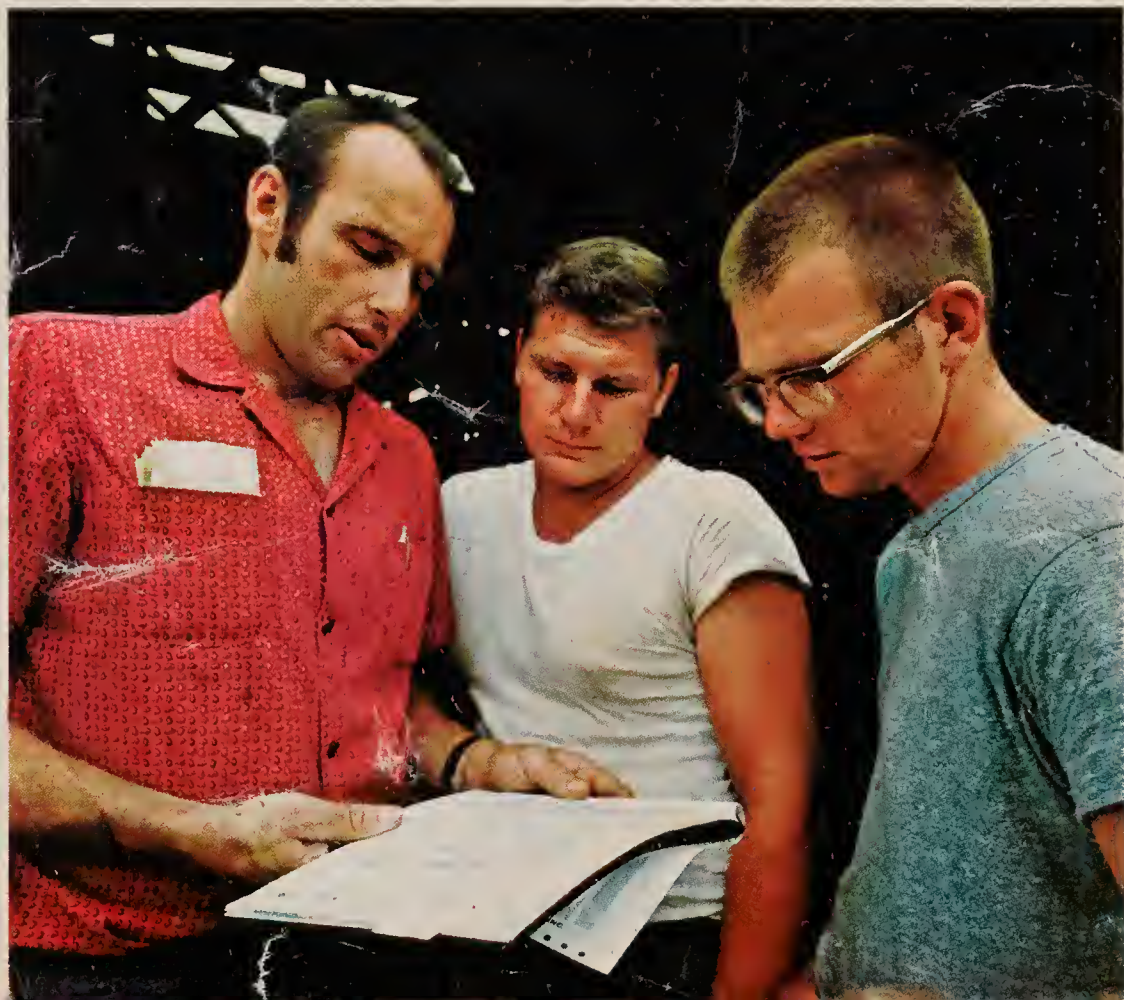
Farm Enterprise Service

AGWAY

Mr. Moore reviews Agway Computer Profile report with Earl Harnish, Agway Dairy Enterprise Salesman.



Practical information from Profile is relayed to Mr. Moore's crops manager, James Miller, and Ken Frankenberger, chief herdsman.



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OUR COVER

Surrounded by all those Thanksgiving dinners is Bruce Bitz at the Plainville Turkey Farm near Syracuse, New York.

Photo: Joseph Albino



have a Grind-in



The tougher the test, the more likely Mix-All's the answer.

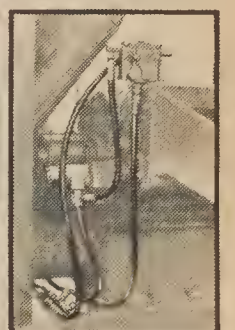
A Grind-In is feedmaking truth. Use *your* grain. On *your* farm. You create the rules. The tougher you make them, the more a Gehl Mix-All stands out. Check what's important to you. One caution — our confidence in the Mix-All is contagious. It may get into your system!

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EDITORIALS

by GORDON CONKLIN



DHIC HAS PROBLEMS

A Western New York dairyman with a dairy herd of 180 cows is commenting, "When a herd gets to 60 cows or more, there just isn't enough time to attempt graining each cow according to her milk production. My top priority is **milk produced per man**, and a second priority is **milk per cow**."

This dairyman is typical of large-herd owners who see no reason to use the services of DHIC (DHIA in most other states). He handles cows in bulk . . . feeding them grain in the communal feed bunk, and not individually in the milking parlor.

A few dairymen have gone to hiring private testers outside the framework of the official DHIC organization. For instance, Les Meidenbauer of Strykersville, Wyoming County, New York, tests 4,000 cows on an owner-sampler basis that has no connection with NYDHIC. Fees charged are minimal, and information provided is tailored to include only what the dairyman believes to be necessary. Les was a DHIC tester for 11 years, has had his own setup for the last 10 years.

Participation in DHIC testing has never been overwhelming in New York . . . and Wisconsin similarly reports only 23 percent of the herds in the Badger State on test. A lot of reasons . . . some legitimate, and some just excuses . . . are given by dairymen for non-participation.

I wonder:

— Has genetic homogeneity in the dairy cattle population reached the point where inherent production-potential differences between individual cows aren't so important anymore?

— Has increasing herd size . . . and accompanying "bulk-handling of cows" . . . changed the economic advisability of checking individual production levels?

— Can bulls be adequately proved with production records that are not officially developed and supervised?

— What's needed most in helping DHIC continue its role of upgrading the dairy industry?

MOBILE HOMES

A controversial subject on the rural land-use scene involves individual mobile homes, and mobile-home parks. Recently, I've had the opportunity to learn first-hand more about those two topics . . . just up the road from the Conklin diggings, a new trailer park has been growing over the past year. During that time, I've attended public hearings . . . visited with many interested persons . . . and read a considerable volume of pertinent information.

Out of all this have developed some conclusions:

— The mobile home is an important part of the nation's housing . . . 370,000 units were produced in 1970, and the industry estimates that one of every five housing units built in 1971 is a mobile home. Soaring building costs for conventional homes have made the mobile home a comparatively good buy in terms of good-quality living space per dollar spent.

— Historically, the major objections by neighbors to mobile homes have involved the possibility of depressed property values in the surrounding area . . . and the question as to whether the rapidly-depreciable units adequately pay their own way in real-estate taxes. Although there is evidence that **well-managed** mobile-home parks no longer create these problems over the long run, there remains a considerable

amount of opposition to mobile homes among the general public.

— The **kind of management** exercised in operating a mobile home park cannot be over-emphasized in terms of influencing its desirability, and whether it becomes a community liability or asset. Enlightened planning and enforcement of regulations by public officials on behalf of the general community . . . both inside and outside the mobile-home park . . . is also very important.

It's my guess that far more communities should be seeking workable and realistic ways to **regulate** mobile homes, rather than seeking to **forbid** them. Technically, it's illegal to forbid them, anyway . . . although some communities have done so in the absence of a determined challenge in court. Fortunately, the township in which I live is in the process of reformulating its trailer-park ordinance, bringing it up to date and creating a blueprint which . . . if enforced . . . will help insure that mobile homes will enhance rather than depress the quality of the environment.

— The long-range future of the mobile home poses some problems not previously encountered. For instance, what do we do with large numbers of deteriorated mobile homes that may end up in trailer graveyards which could dwarf the automobile graveyards of the present?

One final thought . . . if you intend to make the attempt to be a statesman concerning the question of mobile homes, be prepared for brickbats from several directions. Avid proponents of mobile homes will accuse you of denying the widows and babes in arms a place to live because you argue for comprehensive regulations, firmly enforced . . . bitter opponents of all trailer parks will despise you if you even discuss the legitimate role to be filled by mobile homes . . . government officials involved will resent being placed in the middle, and being publicly pushed to live up to the regulations already in force . . . even your dog may bite you because of his lack of recognition created by your attendance at meetings, hearings, land-use planning sessions, etc.!

Take it in good spirits, and faint not! Constructive land-use planning becomes daily more necessary to the general well-being of us all.

For a readable 75-page booklet on the place of mobile homes in American life, send to: Mailing Room, Building 7, Research Park, Cornell University, Ithaca, New York 14850. Ask for the publication "Housing Crisis and Response" . . . available at five dollars per copy.

SAME PROBLEMS

I was reading an imposing-looking document the other day, and noted these comments:

"The general inflation . . . which has raised production costs . . . and increases in the real incomes of workers in other industries have prevented the income gap between farmers and nonagricultural groups from narrowing. The bargaining power of the producers, through cooperatives and other associations, is improving only slowly, and governments have come under heavy pressure for higher prices and income supports. Since no international measures for supply management are in sight, these pressures may result in further obstacles to international trade."

Sounds like things right here at home, doesn't it? Not so . . . it is a description of conditions in Western Europe contained in a publication assembled by the Food and Agriculture Orga-

nization of the United Nations. Entitled "The State of Food and Agriculture 1971," it goes on to describe governmental policies concerning agriculture in this region officially labeled as "developed" . . . contrasted to the "underdeveloped" regions of the world.

The Europeans are, for instance:

— Subsidizing the systematic slaughter of thousands of dairy cattle, in order to reduce a mountainous surplus of dairy product stocks. In the European Economic Community . . . the Common Market Nations . . . 65,000 dairymen have agreed to give up dairying completely since the program began.

— Encouragement of meat production is being done by many governments, especially if such programs can simultaneously help to reduce dairy cattle numbers.

— Early-retirement schemes are being used to try to speed the retirement of older farmers more rapidly than normal attrition could accomplish.

In general, the problems faced by farmers in Western Europe appear to be very similar to those in the United States. And many of the farm programs being used there are the same ones we're trying . . . their success, like ours, is never what everyone involved would like.

Let's face it, folks . . . no individual political leader, or any one political party, creates or solves the problems of the world. Life challenges you and me to come to grips with problems . . . never really solving them completely, but living out the purposes of our existence by making the effort.

One of the economic common denominators of farmers in all developed nations towers above the rest . . . the fact that farmers have less bargaining power than their industrially-employed neighbors. In my opinion, this will continue to be true until the traditional independence that farmers value so highly is modified to allow for strong discipline of the individual on behalf of all farmers.

THIRD ONE

In the October issue, I paid tribute to Charles Palm, dean of the College of Agriculture and Life Sciences at Cornell University, who has announced retirement plans . . . and to Leland Merrill, who retired recently from the deanship of the College of Agriculture and Environmental Science at Rutgers University.

No sooner had we gone to press than I received word that James Cobble, dean of the College of Resource Development at the University of Rhode Island, has also announced retirement plans . . . and also well before reaching mandatory retirement age.

Even as I congratulate Jim for his yeoman service . . . as I did Charles and Leland earlier . . . I am concerned that agricultural-college leadership may be under more pressure than I thought. It's a nerve-wracking business to be in a position of authority anywhere in our troubled society . . . and especially so in colleges.

These men have worked hard, and richly deserve less troubled waters in which to sail their professional vessels. Their replacements will need regular encouragement from farmers and agribusinessmen if agriculture is to remain a vital part of secondary education in the Northeast!

THAT REMINDS ME

Two farm boys were bragging about their strength . . . one weighed 200 pounds and the other was pint-sized by comparison.

The smaller one challenged, "I'll bet you \$10 that I can wheel something in that wheelbarrow from here to the end of the garden, and that you can't wheel it back!"

With a broad grin, the big bruiser accepted the challenge.

The little guy smiled, rubbed his hands, picked up the wheelbarrow handles and said, "Okay . . . climb in!"

American Agriculturist, November, 1971

Who Needs Milk Promotion?

DAIRYMEN DO!

MOST people connected with the dairy industry believe that the time is long overdue for an expanded program to inform consumers about the nutritional benefits derived from milk and dairy products. An inadequate diet is one of the leading contributors to ill health, lost man hours from the job, vitamin deficiencies and many other problems that tend to hold back the potential capabilities of the people in this country.

Teach Early.

Dr. Donald C. McAfee, director of the National Dairy Council's nutrition education, said recently, "It is our belief that, if children can be taught the principles of good nutrition early in life, this fundamental appreciation of good eating habits will set the stage for a more receptive reaction to the total marketing concept of milk promotion."

Going a step further, Dr. Elwood W. Speckman, director of nutrition research, commented, "No one is going to purchase milk if he believes it is going to kill him, make him fat, or otherwise adversely affect his health. It is therefore essential that the dairy industry maintain a very broad base in nutrition research if we are to provide the necessary nutritional information concerning our foods."

New York and Pennsylvania dairy farmers have an opportunity to take steps intended to stabilize their economy, and to bring about the dietary changes that can help correct some of those problems previously mentioned.

Justification for an expanded program of milk promotion, education and research in New York and Pennsylvania . . . and some idea of the results that can be expected from such an expanded program . . . are readily available. In states such as Virginia, North Carolina, Kentucky, Tennessee, Oregon, Louisiana . . . and more recently, California . . . evidence shows that total participation can increase milk sales.

No Magic

There is no magic formula for increasing the sales of milk and dairy products; it requires the investment of adequate funds in order to reach the consumer in the school, the home and the marketplace. Adequate funds cannot be raised on a voluntary basis . . . in fact the voluntary promotion program stands in constant jeopardy because of friction between the contributors and the free riders.

Yogurt is one of the shining examples, of the increased sales potential of dairy products. For the last three years, its sales have been spiraling upward . . . partly because of some effective promotional and merchandising endeavors, and also as

a result of new product research that has brought about improved quality and taste. In the dairy cases, yogurt can now be purchased in practically any flavor under the sun.

It is apparent that much more work needs to be done in the field

of product research with other dairy products. The work of such organizations as DRINC and DDI, backed up by the necessary financial investment on the part of dairy farmers, can achieve successes that were never dreamed possible. Supermarket shelves form a mighty fast track where hundreds of new food items are introduced each year! More of these items should be new dairy products, or updated versions of current dairy products.

Dr. Leland Spencer, widely-known economist and author of "Programs for Promoting Increased Sales of Milk," said recently at the public hearing held in Albany, New York, "Provision should be made by appropriate legislation whereby a preponderant majority of producers

favoring a milk program can, through a prescribed democratic procedure, override the opposition of an obstinate minority." He also said, "Advertising and consumer nutrition education complement each other, and are needed. Entirely voluntary participation makes it difficult to obtain widespread support."

Dairy farmers in New York and Pennsylvania have an opportunity to put into their own market the successful type of milk promotion and educational programming that has been done in some other states. Apple growers and cherry producers have found no prohibitive bugaboos in mandatory contributions on behalf of all producers . . . and they have found distinct advantages. — G.L.C.



Welded pipelines by the experts... one more reason to buy Surge

Kermit Thompson of Deer Park, Wisconsin (pictured above), wanted more than just a pipeline when he decided to get rid of the buckets. He wanted welded lines which would remain leak-proof and maintenance-free for years to come. Kermit put in a 2-inch pipeline and milks his 40-head herd with Surge Mini-Cups.

John Larson of Plum City, Wisconsin figures he'll be milking for twenty years or more, so when he was planning his change, he wanted it right. He put in a welded pipeline in his 37-stall stanchion barn. "Surge gives good service; I felt that was important. They are the only ones that offer welded lines in this area."

Most health department officials are enthusiastic about welded pipelines and their contribution to clean milk. One midwest spokesman said, "We highly recommend the properly installed welded pipeline."

California health authorities have had several years of experience with welded pipelines. They state: "Welded lines are practical and functional; a real asset to modern dairying."

If you are considering a new pipeline, consider the permanence, easy cleaning and economy of a Surge welded line. See your local Surge dealer for further details.

SURGE...the accent is on YOU

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Food For The Spirit



by Robert L. Clingan

THE TWO HANDS OF PRAYER

On the wall of my study is a picture of "Praying Hands," by the artist Albert Durer. Copies of this famous painting are found in many places and in many forms, and often a picture or statuette of it has been a source of inspiration.

This painting says a great deal about prayer. The two hands are

pointed upward, reminding us that prayer is not to ourselves or to another person; prayer is to God. Jesus taught us that prayers made in secret are heard by God, and the God who hears prayers in secret answers them openly.

Each of the hands has a different posture, reflecting two aspects of every genuine prayer. One hand is tense, reaching outward and upward. This hand reminds us that prayer is aspiration. We pray because we aspire. We are to pray for the good gifts that God would give us if our lives were more open... more receptive to the abundance that surrounds us. We pray to become the person we are capable of being. So often we fall short, but the failures we experience would be less

frequent and less pronounced if we spent more time in prayer.

The second hand is relaxed and reposed. This hand tells us that prayer is submission, prayer is surrender, prayer is accepting what God finally ordains. Jesus prayed this kind of prayer in the garden of Gethsemane the night before His crucifixion. He prayed, "Not my will, but Thine be done."

This matter of acceptance is the crucial step we must take if the healing powers of God's spirit and ours are to be put to work. Disaster, disappointment and tragedy... even the death of a loved one... call for our acceptance of God's will. With acceptance, healing begins.

The best balance of these two aspects of prayer is found in the

late Reinhold Niebuhr's prayer for serenity:

"Dear God, give us strength to accept with serenity the things that cannot be changed. Give us courage to change the things that can and should be changed. And give us the wisdom to distinguish one from the other."

Dates to Remember

Nov. 2 - Feeder Cattle Sale, Chatham, N.Y.

Nov. 2-4 - Cornell Nutrition Conference for Feed Manufacturers, Statler Hilton Hotel, Buffalo, N.Y.

Nov. 3-4 - Vermont Farm Bureau Annual Meeting, Barre, Vt.

Nov. 5-6 - Eastern Artificial Insemination Cooperative Annual Meeting, Syracuse, N.Y.

Nov. 6 - Rockingham Craftsmen's Fair, Town Hall, Rt. 111, Kingston, N.H.

Nov. 6-13 - Keystone International Livestock Exposition (formerly Pennsylvania Livestock Exposition), Farm Show Building, Harrisburg, Pa.

Nov. 7-10 - Pennsylvania Farmers' Association Annual Meeting, Penn Harris Motor Inn, Camp Hill, Pa.

Nov. 8-10 - New York Farm Bureau Annual Meeting, Ellenville, N.Y.

Nov. 8-11 - 33rd Annual NYS Pesticide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

Nov. 8-16 - 105th Annual Meeting of National Grange, Charleston, W. Va.

Nov. 12-20 - Royal Agricultural Winter Fair, Exhibition Park, Toronto, Can.

Nov. 12-13 - Annual Meeting, New York Dairy Herd Improvement Cooperative, Binghamton, N.Y.

Nov. 13 - Annual Meeting, NYS Hereford Association, Country House, Syracuse, N.Y.

Nov. 13-14 - Poultry Show, sponsored by Garden State Poultry Fanciers Association, Ryland Inn, Rt. 22, Whitehouse Station, N.J.

Nov. 13-17 - Eastern National Livestock Show, Timonium, Md.

Nov. 16-17 - Massachusetts Farm Bureau Annual Meeting, West Springfield, Mass.

Nov. 17-18 - Connecticut Farm Bureau Annual Meeting, Holiday Inn, Meriden, Conn.

Nov. 18 - 1st Annual Livestock Field Day for Meat Animal Livestock Producers, Cornell University, Ithaca, N.Y.

Nov. 18-19 - Pennsylvania Holstein Association Annual Meeting, Penn Alto Hotel, Altoona, Pa.

Nov. 19 - Feeder Pig Sale, Caledonia, N.Y.

Nov. 23-24 - Inter-State Milk Producers' Cooperative Annual Meeting, Marriott Motor Hotel, Philadelphia, Pa.

Nov. 25-Dec. 2 - International Livestock Exposition, Chicago, Ill.

Nov. 28-Dec. 2 - National 4-H Congress, Chicago, Ill.

Dec. 3-4 - 4th Annual Pennsylvania Wine Conference, Penn State University, University Park, Pa.

Dec. 4 - Annual NY Hereford Registered Calf Sale, Canandaigua, N.Y.



Merc. Wherever there's a job to do.

There's an old saying, "When the going gets tough, the tough get going."

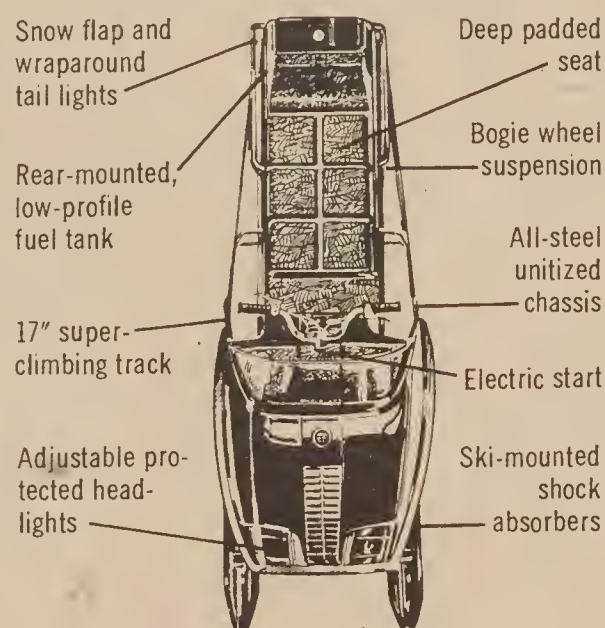
In winter, the going gets tough. And that's when the Mercury Hurricane gets going. 35 horsepower of rugged, sled-pulling energy in a 644-c.c. engine takes the Hurricane almost anywhere in winter.

When the weather's at its worst, Hurricane is at its best. Exclusive Thunderbolt ignition for sure starts and smooth running in any cold. Plus a super-climbing track that

glides through heavy snow while the "spoiler" windshield directs snow and wind up and over your head.

When you find the going rough in winter, get tough, get going and get the job done with the help of a Mercury Hurricane. And remember, your Mercury dealer has been factory trained to service what he sells.

Merc. Wherever there's a job to do.



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MERCURY

Make your mind up on a Merc.

Please check the Yellow Pages for the name of your nearest Mercury dealer.



Left: Chevrolet trucks for '72 feature numerous changes, including new acrylic enamel exterior paint, larger rear brakes on some models and engine modifications for pollution control.

Dodge pickups feature coil springs in front, leaf springs in back. There are four Dodge truck models for use as campers.



Preview '72 TRUCKS

Trucks, part business and part family transportation for farmers and ranchers, need to be tough—but they can be stylish and comfortable, too. Manufacturers are making that combination even more possible in 1972. Part of the reason for more comfort and styling options has been the trend toward making trucks, especially pickups, an integral part of the recreation and outdoor living boom. Engineers were quick to see the need for family comfort options, as well as streamlined styling to meet demands of a wider range of consumers. With the rollout of the '72s, it's clear they've met the challenge, and that means farming could be more enjoyable for you.



International's 1510 model with grain or stock rack is available in 132" or 156" wheelbase. Four engines are offered, ranging from 135-hp, 6-cylinder to a V392, V-8.



Above, left: Ford Truck Division continues emphasis on use of pickups for work and recreation.



Left, below: GMC pickups range from a 250 cu in, six cylinder on up to a 400 cu in V-8.

Right: Engineering and design refinements improve versatility of Jeep four-wheel-drive vehicles.



LIVESTOCK



Horse Judging — The February, 1972 issue of *AMERICAN AGRICULTURIST* will feature a pictorial Horse Judging Contest. Blue ribbons and special trophies will be awarded to winners. Names of winners will be published in a later issue.

There were 3298 entries in the contest in 1971.

Swine AI — Special handling procedures for frozen boar semen have led to successful artificial insemination of sows at the USDA's Animal

Science Research Center in Beltsville, Maryland, where seven sows inseminated with frozen semen gave birth to 60 piglets.

Scientists are hopeful that the new procedure in conjunction with AI is a long step toward the time when genetically superior sires can be widely used to produce pigs with more lean meat and less fat. They hasten to add that much more research will be needed before commercial adoption is practical.

Zeranol — A new growth-promoting hormone, zeranol, was effective in increasing weight of lambs and cattle raised under various management systems at Penn State. In one trial, weaning weights of steer calves were increased by 25 pounds above calves

receiving no treatment.

Similar steer calves implanted with the hormone stilbestrol, used for many years to increase growth rates in cattle and sheep, posted a gain advantage of 19 pounds. Comparable gains were accomplished in various tests with lambs.

In many of the trials, feed efficiency also improved. The use of zeranol had little observable effect on carcass meatiness or quality.

ASF — New York swine owners detecting symptoms . . . high fever, listlessness, loss of appetite and rapid death . . . of the deadly African swine fever (ASF) in their herds are urged to notify animal health or New York State Veterinary College officials, Cornell University, Ithaca, New York.

ASF has invaded the Western Hemisphere for the first time in history, and is now rampant on the island of Cuba, (where it's wryly referred to as the Slay of Pigs). It is feared that the disease may spread to this country.

Early in an outbreak, the disease may not show recognizable signs until shortly before the death of the swine. Dr. Leroy Coggins, associate professor of virology at the NYS Veterinary College, has developed a test for quick diagnosis.

Biuret — As a non-protein nitrogen supplement for cattle on the range, biuret looks more promising than urea because it releases its nitrogen more slowly, says a University of Nebraska researcher.

When range cattle are consuming winter native grass, readily-available nitrogen isn't present and they need a nitrogen source that is released slowly. For feedlot cattle, urea is best because they're receiving inputs of high energy and can take advantage of the quick release of the nitrogen.

Super Calf — Mating two-breed-cross cows to bulls of a third breed can result in spectacular differences when compared with straightbreds.

In research at Virginia Polytechnic Institute, three-breed-cross calves involving Angus, Shorthorn and Hereford breeds weighed an average of 7.5 pounds more at birth . . . also, 9 percent more calves were weaned, and their weaning weights were 44 pounds higher.

Crossbred cows bred to bulls of a third breed produced 21 percent more pounds of calf weaned per cow bred.

Eye of the Master—Meat animal producers are always interested in seeing whether their breeding and growing programs are responsive to the desires of packers and consumers. This accounts for a growing number of quality meats contests to see just how well champion livestock turns out in the cooling rooms of slaughterhouses.

Carcasses are evaluated on the basis of grade (conformation, marbling, texture, color, etc.), as well as on yield of salable meat. There were 24 steers, 74 hogs, and

(Continued on next page)

Peter Comerford, senior marketing representative with the NYS Department of Agriculture and Markets, looks at beef carcasses from animals shown at the last New York State Fair.



Ok. Let's get down to facts.



Fact is we're the largest,
most experienced snowmobile
manufacturer in the world. Here's why!

FACT/ROTAX ENGINES:

Designed exclusively for each model of Ski-Doo snowmobile and winter proven to start even at forty below zero. Aluminium alloy cylinders, aluminium pistons, shrouded axial fan (two cylinder engines) and cooling fins get rid of heat fast to keep it running cool.

FACT/IDEAL BALANCE:

The power to weight ratio is just right. Even the position of the driver has been taken into account. Enough weight on the track to give you sure thrust traction and enough weight on the front for carving tighter turns.

FACT/QUALITY BUILT:

The keynote to each Ski-Doo snowmobile is quality. Each one is checked on the drawing board, test run in the factory and checked out by your dealer to insure the best possible performance for each particular model.

FACT/WIDEST CHOICE:

The economical, full-sized Elan* model at \$595+... the fun-loving, sporty Olympiques...the zappy, TNT* trailbusters...and, the swinger's choice, the luxury-laden Nordic* machines. Plus Alpine* Valmont* Blizzard*, seven great series more than 24 models.

FACT/BEST SERVICE:

Our special factory approved service schools assure you quality maintenance. Your Ski-Doo dealer, one of more than 2,400 across North America, also offers you a dependable warranty, the most complete stock of genuine Ski-Doo parts, accessories and winter fashions.

These are just a few of the **FACTS**.

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MARKETING BEEF

A great deal has been said about selling beef . . . much of it by those not on the firing line of supermarket sales. Here are some comments on the subject by Irv Rinehart, of the Godfrey Company, Waukesha, Wisconsin:

"Our Sentry Food Stores here in Wisconsin use about 700 carcasses per week. These are distributed through 74 supermarkets in south-east Wisconsin and that 74 stores include rural stores, small town and urban. Our quality specifications are for U.S. Choice beef in the upper third of the grade. We're assured from experience that we get just about complete satisfaction from consumers if we stick to the upper third of the USDA Choice grade . . . we find that we have fewer complaints, and fewer problems.

Cutability

"Our cutability requirements are for ones, twos and occasionally we reach down into the threes. We seek a moderate amount of marbling, smooth texture, red bone and a reasonable amount of white-colored fat covering in order to get the firmness of the red meat. We select every carcass of beef that goes through our stores, and we see all types of U.S. Choice beef, some of which we feel doesn't have the firmness of red meat and the marbling that will bring us the kind of satisfaction that we think our customers should have.

"There is a transition going on in the retail food business, and the meat

business in particular. We are going to see some changes in the next few years that perhaps will lend some guidance as to what the cow-calf man and the feeder will be doing in the size of carcasses.

Go Direct

"Cattle are going directly from the packing house to our supermarkets, and we give each market the size of carcass that they want for their particular customers. Cutting

and processing of the carcass is going to be done in a central place. We in the supermarket business think that we will be doing it, but there are some good reasons why it should be done at the packing level.

"But as this change comes about, it is going to be obvious that it costs us just as much to make a slice through a round from a 500-pound carcass as it does to make a slice through the round of a 700-pound carcass. We're going to be measuring productivity based on tons per man hour, and heavier cattle are going to bone more efficiently than light cattle. So in the next five to ten years, this transition is going to take place.

"The thing that is important to us is that there is no single item in

the supermarket more important to us than beef. When you think that meat sales are about 25 percent of total store sales . . . and, of your total meat sales, about one-half are beef sales . . . then you get down to the fact that 12½ cents of every dollar that goes out the front door is beef.

"The consumer is not in a position to decide for herself what quality she should have. She is not the expert that we are supposed to be. So we have to give her what we feel will be most satisfying to her; tenderness and flavor. And our experience says that the top third of the Choice grade is it.

"I don't think there is any trend to go to lean meat. She wouldn't be happy with it."

The Poulan XXV. Now you have two good reasons to buy a chain saw.

Reason One

We tested the Poulan XXV against all the under-ten-pound portable chain saws in America. In every case the Poulan XXV sliced through logs faster than any other saw. If there's one big requirement for a chain saw, it's speed. But speed alone is not enough. A chain saw's got to be tough enough to work day and night.

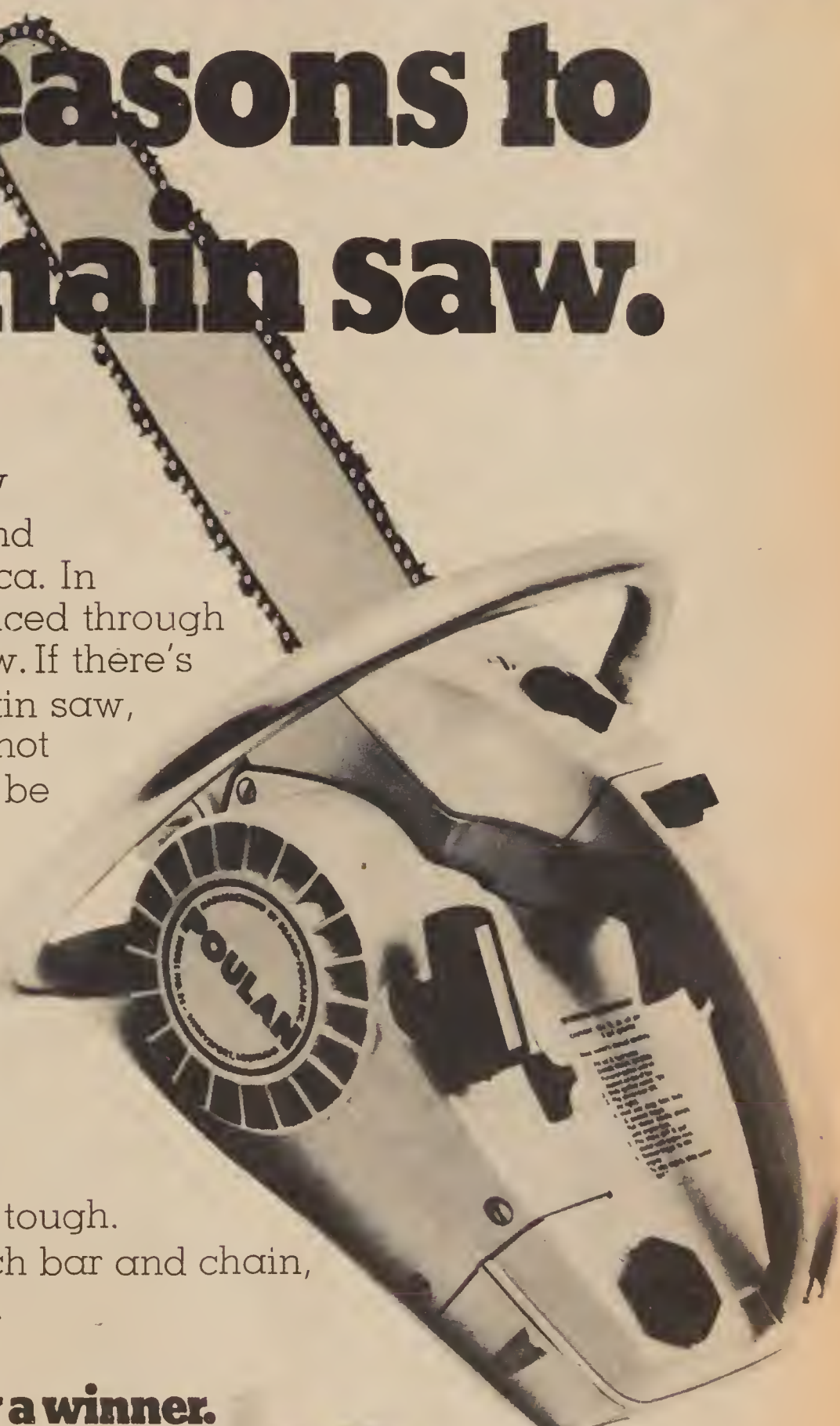
Poulan's XXV is engineered to do just that. Engineered tough. Then built tough. So much for reason number one.

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The Poulan XXV is priced tough. At \$129.95, complete with 14 inch bar and chain, we win the money contest too.

Get the Poulan XXV.

Tough enough to stay a winner.



Livestock

(Continued from page 8)

23 lambs entered in the quality meats contest at the last New York State Fair.

Rally Farms, Millbrook, New York, sold the champion beef carcass for \$2 per pound. Similar top prices were paid by buyers for the best carcasses of other kinds of livestock.

Both consumer and packer are interested in the product that comes across the counter . . . not so much in the ribbons that come across the show ring!

Your Horse — A 60-page book of information valuable to horse owners is "Horse Handbook, Housing and Equipment." It focuses on the problems of good housing design, and details the construction of stalls, jumps, corrals, fences and other equipment.

"Horse Handbook" is available for \$2.00 from Midwest Plan Service, 207A Agricultural Engineering, Iowa State University, Ames, Iowa 50010.

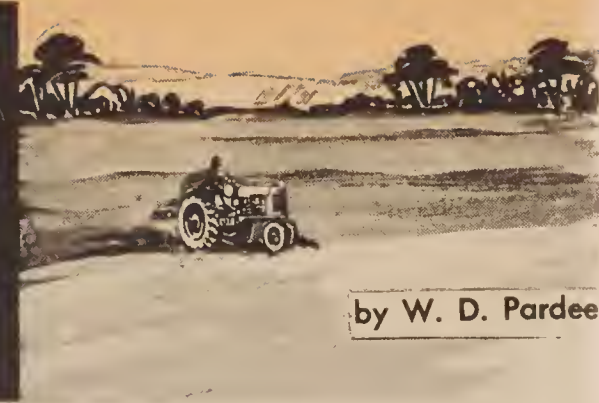
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What's NEW in the FIELD

by W. D. Pardee



NEW DEVELOPMENTS IN HYBRID CROPS

ONCE there was an outstanding geneticist and plant breeder who decided to cross the radish and the cabbage. He was interested in the genetics of the thing, but also thought he'd develop a doubly-useful crop with the top of a cabbage and the root of a radish.

He succeeded in making his hybrid, which grew with great vigor, reaching many feet in height. But, lo and behold, the hybrid was not as he'd hoped, for on top were the leaves of a radish... and on the bottom, the roots of a cabbage!

Hybrid development continues to be a goal of many plant breeders, and some have been more successful than the gentleman above. (He actually didn't make out too badly, either, since the genetic implications of his cross made him famous.)

Hybrid Corn

Hybrid corn developers have changed the face of U.S. agriculture, and... together with hybrid sorghum breeders... they forged the feed grain base for the modern livestock and poultry industries. Vegetable breeders have created many hybrids, including tomatoes, cucumbers, onions and squash, all with vigor and uniform high quality. Flower breeders have come up with hybrids in petunias and other species to provide a mass of floral beauties.

Now new hybrids are in the news. Some are still under development, some are coming on the market. But whatever the case, you'll be hearing lots more about them. One point to remember. The making of hybrids is just one way of developing improved varieties. There are numerous tricks in the plant breeder's bag by which he can develop superior new crop strains. Hybrid-making may not be the answer in many crops.

Hybrids do have several things going for them. First off, there's hybrid vigor... the phenomenon, still not clearly understood, that makes the progeny of unlike parents occasionally surpass both parents. This is the breeder's reward, but it isn't automatic.

Frequently you can get a hybrid, but have no vigor. Or you may have vigor, but find other flaws, as our radish-cabbage breeder found. Plant breeders must test thousands of crosses to pick those that surpass both parents. Many are examined, but few are chosen.

Uniformity of product is another major feature of hybrids. Uniform maturity is all-important in grains and vegetable crops intended for machine harvest. Uniform quality is a plus in vegetables for processing or for counter sale. Uniformity of color to provide a mass effect of beauty is sought in flowers such as petunias.

Flexibility in breeding is also a feature of hybrids. Breeders often can get a hybrid that can resist a

new disease by changing just one parent in the seed production field. This can be far quicker than the years needed for the many crosses and back-crosses often needed to convert to a non-hybrid variety.

A good example is the recent massive shift from T-cytoplasm lines that are susceptible to leaf blight... a switch to blight-resistant N-cytoplasm corn. This started just last winter, is now in full gear, and by next fall will be complete. This massive change in the seed for the nation's corn crop could only have been achieved through a hybrid system.

Hybrids have limitations, however. Though extremely uniform themselves, they break down into a vast variety of forms in the next generation. This means that you can't plant back your hybrid corn seed and expect to have either uniformity or hybrid vigor.

Uniformity itself can be a disadvantage under some situations. An alfalfa variety planted in a rolling field must produce under a wide range of conditions from the dry knoll by the woods to the swale by the road. In addition, it must survive summer heat and winter snows and yield well under a variety of cutting management systems. A broad-base variety with lots of variability from plant to plant may be better for such situations than a uniform hybrid.

Triticales

Probably the most unusual hybrid in this news may actually be the prototype for a totally new crop. This is triticales, a hybrid between wheat and rye. Its name comes from a combination of the scientific names for wheat, *Triticum*, and rye, *Secale*. Triticales features some of the advantages of each parent and produces a large, robust head that can be high-yielding where it's adapted.

So far, most breeding work with triticales has been in Canada, Mexico and California. The first released lines have been designed for spring planting. Several new experimentals now have improved winter hardiness, and can be planted in the fall.

Triticales shows promise for U.S. farmers, but several questions need answering. First, what's the crop good for? So far, millers have not accepted this crop for milling or baking purposes. They can't use it for either wheat or rye bread. Nor does it fit into any other baking slot at this time.

So the only use at present is for feed, and even here, grain handlers and feed merchants aren't cheering. They don't want to get it mixed with other grains, nor do they want to stand the extra costs of storing it separately.

That leaves only feeding at home, and so far that's been the main use

(Continued on page 11)

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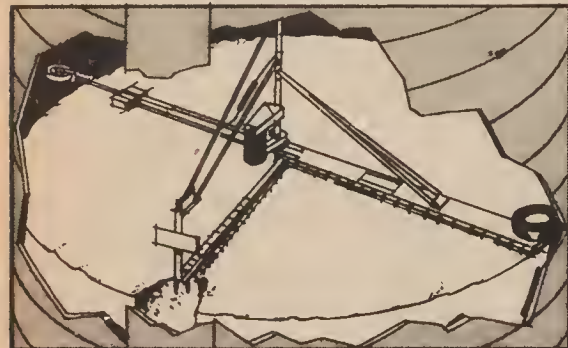
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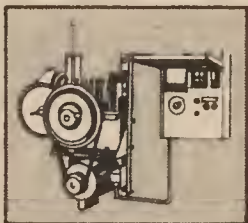
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for what little triticales that has been grown.

Actually, as homegrown feed, western tests show triticales looking good. Protein content can be 30 percent, compared to 8 or 10 percent for corn, and 10-12 percent for barley and wheat. And triticales protein is high in lysine and other essential amino acids, making it excellent for swine or poultry feed, as well as for dairy and beef.

So far, so good, but how does it yield? To date triticales strains have **not** excelled in Northeast trials. That's not surprising, since strains under test were developed for Western Canada and Mexico, both with growing conditions far different from ours. Big problem in New York tests so far has been standability, with plants growing too tall, then breaking over before harvest.

Triticales seed supplies will be available in limited amounts this next spring and summer through several Northeast seed companies. But go easy. A few acres may be fun to see what the crop can do, but a large planting could be disaster if it yields poorly or falls flat.

Alfalfa hybrids also made news this year as one midwestern alfalfa company started sale of a hybrid variety and secured a patent on their breeding technique. Other companies are pursuing other methods and we may soon have several hybrids on the market.

Big question now is how valuable hybrids actually can be in alfalfa. In several northeastern trials, hybrids have done no better...and frequently worse...than new varieties developed through other means. In Cornell trials, Saranac and Iroquois (neither of them hybrids, but both bred with advanced breeding techniques) continue to top the trials, despite the presence of the best hybrids available.

Another big factor may be seed cost. Alfalfa hybrids cost money to produce and seed production has been erratic and difficult. Only experience will tell us whether there's enough yield advantage to pay back extra seed costs.

Hybrid Wheat?

Also big in the news lately has been hybrid wheat, or at least the possibility thereof. Several major seed companies are gambling millions of dollars on their bet that hybrid wheats are the wave of the future. Most of their efforts have been aimed at developing varieties for the vast wheat acres of the Great Plains States and not for the far smaller Northeast acreage.

In wheat, as in alfalfa, the major problem has been seed production. Wheat flowers are demure, normally pollinating themselves before they open. This means breeders had to develop male-sterile lines to serve as females, lines that could not produce pollen. Then they had to develop male parents to provide pollen for fertilization, complete with genetic factors to restore male fertility in the next generation.

This last is all-important, since a male-sterile wheat field might produce lots of straw, but with no pollen, there'd be no grain. These jobs have now been done and some highly desirable parents have been developed.

Big problem now is seed production. Wheat pollen doesn't blow around the way corn pollen does, and you need pollen to fertilize the female flowers. As a result, seed set has often been poor. Breeders and seed producers are focusing on this problem, and should eventually solve it, but it's holding back progress at present.

Big question for Northeast farmers is whether wheat hybrids will pay off in our area. This issue is still in doubt.

Those breeders extolling hybrids point to test results suggesting the potential for 10-20 percent higher yields with hybrids. Yet new Northeast varieties like Yorkstar in New York, and Blueboy farther south, have boosted yields this much over

previous varieties. And new lines now in test promise further yield boosts.

Dr. N. F. Jensen, wheat breeder at Cornell, is working with hybrids, but so far finds he can make faster progress with other breeding techniques, some more sophisticated than hybrid development. And, with his varieties, seed growers need not struggle with poor pollination or low seed yields.

This year, North Carolina breeders announced the development of a male-sterile soybean line, and soybean breeders the country over are busily crossing their best strains to this parent. By removing the need for hand emasculating, this line opens the possibility of hybrid soybeans.

But as in wheat and alfalfa, there are tremendous problems to overcome. My guess is that it will be 10 years or more before soybean hybrids are on the market.

Here again, pollination will be difficult to accomplish and there'll be numerous seed production problems to work out, once the breeding work is complete. This doesn't mean it shouldn't be tackled. It just indicates that we shouldn't look for success tomorrow.

Plant breeders are an optimistic group, and new technology has helped them speed progress. They've already made achievements long thought impossible, so let's hope they keep trying. Who knows, maybe you'll get to grow that cabbage-radish yet!

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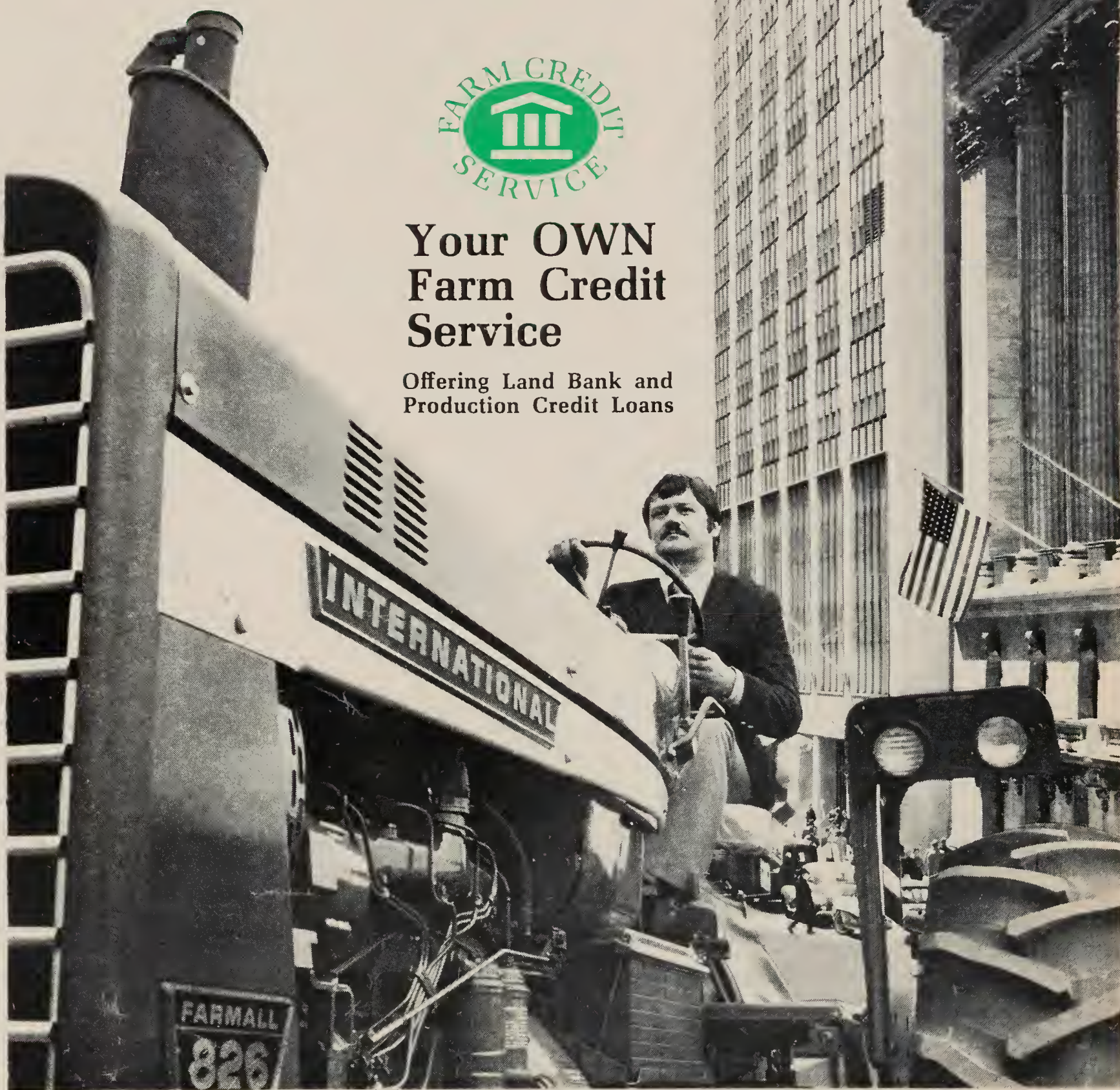
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Bob Sanders uses a lagoon, constructed at a cost of less than \$500, that has been operating for nearly four trouble-free years.



LAGOON DISPOSAL

by William Quinn

A popular song of a decade ago extolled the virtues of "a sleepy lagoon." Now, more than ten years later, some northeastern dairymen have started singing the same tune.

Rather than a tropical retreat for getting away from it all, the dairyman's lagoon is a shallow pond that serves as a disposal system for wastes from his milkhouse and milking parlor. Rather than being located in some far-off South Sea paradise, the dairyman's lagoon is most likely within a few hundred feet of his milking center.

Dairymen are turning to lagoon disposal systems because, all too often, the traditional septic tank and tile field just doesn't work. A rapid increase in size of herds, a trend to pipelines and parlors, the adoption of clean-in-place tanks and equipment . . . all adding greater volumes of material to handle, still further compound what is already a difficult disposal problem.

A survey of more than 100 dairymen conducted last year in central New York gives striking evidence of its magnitude. All the dairymen questioned had completed an expansion program in recent years. Most had installed a new septic tank disposal system; most commonly, a 1,000-gallon tank was used.

Yet despite their best efforts to install a "good system" . . . one incorporating the best know-how of sanitarians, farm builders and Extension personnel . . . the majority of these dairymen reported they had to pump their tanks two or more times a year. Plugged drains, filled tanks and tile lines, soils saturated above the leach field, even flooded parlor pits, were frequently encountered by those surveyed.

Variety

Part of the problem in the use of these septic tank systems is a result of the great variety of materials fed into them. Effluents from milking centers contain several widely diverse products . . . milk solids, manure, feed, sanitizers and cleaners. Unfortunately, the list sometimes includes even paper towels, filter pads and cigarette butts! The amount of each component, as well as the amount of water, varies from farm to farm according to the physical layout, the size of

the operation and the management practices employed.

Even the makeup of some of the individual components is not very uniform. For example, when manure is discharged into a tank, part of it floats and forms a scum layer. This part is largely cellulose, the material which makes up much of the "skeleton" of plants. It is highly indigestible in tanks . . . in fact, in almost any place except a cow's rumen. Another fraction of the manure . . . the finer, heavier particles . . . settles to the bottom of the tank where some bacterial digestion may occur.

Troublemaker

Milk fed into a septic system is a constant troublemaker. Milk is highly soluble, and usually doesn't stay in the tank long enough to break down into simple compounds. Then, discharged to the dry well or leach field, its solids can seal the soil pores and plug the field.

If the milking center disposal system fails to function, and the effluent ends up in a blind ditch or is disposed of on the dairyman's land, it's true that little harm is done. If, however, it ends up in a stream or public body of water (as too often happens), it's a pollution hazard because milk waste has a very high pollution potential.

Sanitarian engineers use the abbreviation B.O.D. (biochemical oxygen demand) in expressing the pollution index of organic waste products. This term, expressed in pounds, is a measurement of the amount of oxygen which will be used up in the biochemical oxidation of that waste.

Man's waste, for example, creates a B.O.D. of approximately two-tenths pound per day per person. One pound of milk solids, on the other hand, contains approximately one-half pound of B.O.D. Since milk is about 12 percent solids, one hundred-weight of milk has a B.O.D. of six pounds, or the daily waste equivalent of a population of 30 people.

Milk sanitarians and health department specialists are also starting to view the traditional septic tank-leach field system with an increasingly critical eye. John Orndorff, regional engineer for the New York State Department of Health, serving

(Continued on next page)

American Agriculturist, November, 1971



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an 11-county area in western New York, expressed it this way, "We've had altogether too many problems with these systems failing in the past. In fact, we think the risk of failure is so great that we just don't want to endorse standard subsurface septic tank disposal systems in the future. Still, we want to give a dairyman as many options as possible. So we're not saying that he can't install a septic system. However, we reserve the right to have it corrected if it fails to function."

Orndorff views lagoons as a better alternative for handling milking-center discharge. "In waste disposal, everything carries a risk," he says. "You have to balance performance and cost. We could probably design a sophisticated subsurface disposal system that would do the job... but we must also consider the economics. Most dairymen are cooperative; they too, want to solve this problem."

"Right now," he continued, "we don't see any other feasible system that has as much chance of success as a lagoon. It seems to be the optimal system. Of course, we need to confirm this by further testing; we may find some failures."

Better Bet

These are some of the reasons that aerobic lagoons... which can biochemically decompose organic waste... are being selected as "a better bet" by many dairymen.

Bob Sanders, for example, who operates a 100-cow free-stall unit near Auburn in Cayuga County, New York, installed a lagoon disposal system about four years ago. "It has worked fine," says Bob. "We've never touched it, never dredged it out and never had an odor... even on a hot, muggy day. As a matter of fact, I did some work on the inlet a while back and didn't even pick up an odor on my hands after working in the water."

Bob's lagoon is 50 feet wide, 150 feet long and about 4 feet deep. A four-inch tile on about a two-percent slope permits the drainage from his milking center to flow by gravity to the pond. "It enters just about the water level," Bob reports, "but it doesn't seem to freeze around the outlet. Of course, some hot water and cleaning chemicals feed into it... this may help."

Management

He stresses the importance of good lagoon management. "We try to keep the manure in the parlor out of the system. In fact, we removed the grates and put concrete in the parlor drop, so we now sweep out all the droppings before flushing down the parlor."

"We put in a standpipe halfway between the parlor and the pond so we could get at the tile with a cable, but the tile generally stays clean. Water from the barn roof flows into it and flushes out the line. When we've had a dry spell and no roof water, we've sometimes plugged the drain in the parlor pit. When this happens, we fill the pit with water, then let her go with a whoosh to flush out the line!"

Successful lagoon operation depends upon keeping it supplied with an abundance of dissolved oxygen, so that a population of aerobic bacteria is maintained. In an aerobic lagoon, the waste-treatment process

is fairly complete... and odors, flies or insects are not a problem.

In an anaerobic lagoon, decomposition of the waste is slow and incomplete. A foul odor... a sewage smell reminiscent of rotten eggs or swamp gas... results.

To maintain an aerobic lagoon, a dairyman must keep it populated by aerobic bacteria... those that live only in the presence of oxygen. The amount of oxygen available depends on the duration and intensity of the sunlight, the surface area of the pond exposed to it, the temperature of the water and the action of wind blowing across it.

The amount of oxygen in the water must be kept in balance with the amount of waste fed into it. Too much waste, or too little oxygen,

results in the good aerobic guys being replaced by the bad anaerobic guys. So the design of a lagoon must be planned with this balance in mind.

Its size will depend not only on the amount of waste fed into it, but also on its location... more northern, colder areas (or areas with less sunlight) require larger pond-surface areas. Soil Conservation Service guidelines for New York State call for a minimum of 125 square feet of water surface area per cow.

In more southern Pennsylvania, Penn State agricultural engineers Henry Wooding and Larry Click suggest that smaller surface areas can do the job. Their recommendations call for a minimum of 2,000 square feet of surface area for 60 cows. As

the number of cows milked increases, they suggest that the area per cow may actually decrease, since the amount of liquid waste produced doesn't climb in direct proportion to herd size.

To permit sunlight to penetrate a lagoon should be constructed with a flat bottom and be designed for a water level of not less than two, nor more than five feet. Even the best-designed lagoon can be overloaded if too much organic waste material is discharged into it. Overloading means bad odors. One dairyman "pulled the plug," dumping 1,000 gallons of rejected milk into his lagoon... then wondered why he had an odor problem!

Several lagoons are being in-

(Continued on page 16)



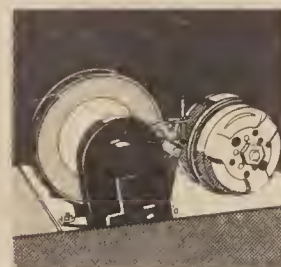
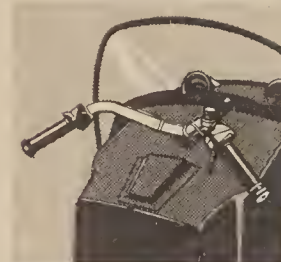
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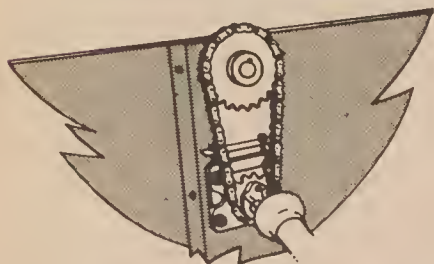
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Lagoon

(Continued from page 15)

stalled this year with the help of the new Rural Environmental Assistance Program (REAP), administered by ASC. Cost-sharing is available to dairymen who construct these lagoons according to specifications developed for each state by the Soil Conservation Service. In New York State, REAP will pay up to 50 percent of the cost of these facilities. James Chamberlain of Plank Road, Walworth, in Wayne County, constructed the first lagoon under this program in New York State.

Condensed

Here's a condensed version of some of the lagoon "specs" established by SCS for New York conditions.

— Locate the lagoon near the barn and away from dwellings (preferably downwind) on impervious soils, or soils suitable for sealing.

— Have sufficient water available to fill and maintain it.

— Provide a surface water area of 125 square feet per cow with liquid storage depth between 4 and 5 feet (minimum 2 feet, maximum 5 feet). Excavate a uniform square or rectangular shape, with level bottom. Cut edges of lagoon below water level approximately 3 horizontal to 1 vertical.

— Provide a minimum top width of earth embankments of 8 feet, with the elevation of its top 2 feet above the water level.

— Use an inlet pipe of at least 4 inches, with a minimum 1 percent slope, covered by at least 2 feet of earth with the discharge at least 1½ feet above normal water level.

— Install a baffled inlet basin in the milking parlor and milkhouse . . . and a baffled settling tank large enough to contain three days storage between the milking center and the lagoon.

— Provide a 4-inch overflow pipe with provision for drawing down.

— Fence the lagoon, and post warning signs.

The SCS design criteria provide a functional, well-engineered lagoon. It's not inexpensive, however, even with cost sharing. And much is still unknown about what really is important in lagoon design. So to obtain more research data, seven lagoons are being constructed that test, under field conditions, alternative lagoon designs. These will be monitored by Cornell researchers.

Studies

One item to be studied is how great is the need for the settling tank between the milking center and lagoon. Some believe that the additional initial expense and periodic cleaning cost of such a tank is unnecessary. They reason that, with good managers, the present sizes are adequate to do the job. With poor managers, they argue, the settling tank will fill up and be bypassed anyhow.

A second item that will be examined is the lagoon-level control device. Its purpose is twofold . . . to prevent overflow, and to regulate the liquid level. Alternative methods that might do the job include the use of a siphon tube or a small

portable pump hooked by plastic hose to a sprinkler head. Whatever the method ultimately chosen, any discharge should be managed so that no ponding or surface runoff occurs.

In practice, evaporation may often exceed input . . . but a drawdown device may be necessary during high-water periods such as in late fall. Unfortunately, there are no clear-cut, ready-made, all-inclusive answers to all the questions associated with milking center waste disposal. Much is still to be learned. No one, in fact, even knows exactly what milking center effluent contains.

But researchers have begun to focus their sights on the problem. Recently, Prof. Robert Zall of Cornell's dairy and food science department instituted a study to determine more precisely what are the volumes, and what is the concentration, of the material discharged from milking centers.

Samples

Under his direction, Extension agents measured and sampled the effluent from milking centers across New York State. These data have not been completely compiled, but his preliminary findings show great differences between farms in the amount of waste.

"I was struck by the very high level of settleable solids (feed and manure, for example) on those farms with milking parlors," he comments. "I know now why those tile lines have been plugging. It makes one wonder if there shouldn't be a separate disposal system for a parlor."

Generally, the answer to dairy farm waste management is to "keep it on your own land." Lagoons may be one way to help do that job.

For those considering building a lagoon we offer these suggestions:

1. **First, get approval.** Check with your plant fieldman or health department sanitarian **before** you begin. In New York State, systems for less than 150 cows require a Health Department okay; for more than 150 cows, approval must come from the Department of Environmental Conservation. Also check out any local ordinances.

2. **Select an appropriate site.** A down-hill, down-wind site is best. Allow space for a second lagoon if it should ever be needed.

3. **Design a safety factor.** A lagoon a little larger than needed not only allows for future expansion, but provides a safety valve.

4. **Start loading your new lagoon in warm weather.** The bacteria and micro-organisms are most active then and will multiply faster.

5. **Manage it sensibly.** Keep out as much of the solids as possible. Sweep the manure and spilled grain from the parlor before flushing down. Find another use for rejected milk, bloody milk, or milk from treated quarters. Don't dump it into the lagoon.

6. **Keep it on your land.** Don't allow the lagoon discharge to enter a watercourse.

7. **Don't permit an eyesore.** Clipping grass and weeds around the lagoon helps maintain a neat appearance.

8. **Fence and post the lagoon.**

American Agriculturist, November, 1971



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CHANGES IN FARMING

by Amos Kirby
New Jersey Editor

THE 1971 crop season now drawing to a close is marked by more changes in New Jersey farming than have taken place in the last 10 years. The changes are centered on one word, "mechanization."

Low prices for most crops, higher labor costs (40 percent of all costs), and unbearable regulations by federal and state agencies are listed as factors that are forcing mechanization.

Bean, pea and potato harvesters are standard pieces of equipment that have reduced the need for labor. The recently-introduced asparagus harvester is here to stay. In 1972, there may be one or two peach harvesters in the South Jersey area; tomato harvesters have proven their adaptability.

Seeding

New seeding equipment for asparagus and tomatoes will be replacing much of the cost of southern tomato plants, and the costly practice of growing asparagus by hand-seeding the roots.

Amidst all this change, some crops may disappear. The thinking is, "If it cannot be grown and harvested mechanically, it will not be grown."

Growers say, "The day of price-offering is changing to price-acceptance. If it cannot be marketed at a sufficient profit, forget it." Winter farm programs now being developed by a score of organizations emphasize a sensible price at the marketplace.

FEEDING CALVES

The New Jersey Extension Service suggests a change in feeding calves. The new recommendation is to feed the calves **once** a day, instead of twice.

The one-a-day feeding reduces labor costs by 42 percent. At the same time, the calves on either milk or a milk replacer do as well as they did on the old system.

The single feeding may bring the calves to eating hay and grain at an earlier age. Further evidence indicates that there is no increase in calf mortality under the new system . . . and that calves show improved weight gains.

NEW MARKET

Delaware potato growers may soon be changing their marketing

systems. Until 1971, Delaware has grown about 9,000 acres aimed at the fresh-market trade.

This year, the Experiment Station has been working on varieties aimed at the chipping market. Of eight varieties tested, 6HS-9 from Penn State proved the most successful. Three other varieties . . . LaChipper, Haig and Superior . . . were satisfactory. Cascade, a new variety from the West Coast, varied in chip color and could not be depended upon to produce satisfactory chips. Another variety . . . NY 41 . . . was not recommended under Delaware conditions for potato chips.

PEACH HARVESTERS

Demonstration of a mechanical peach harvester in New Jersey this past season indicates that there may be one or more in field operation in 1972.

The Durand harvester, demonstrated in the Wilson Hughes & Sons orchards in Gloucester County, indicates that with a few changes it may be the replacement for hand harvesting.

This harvester, differing somewhat from the Clemson machine viewed by the writer in South Carolina in 1970, can be adjusted to meet fresh-market standards.

AG WASTES

W. T. McAllister, assistant director of the Delaware Extension Service, is advocating intensive research on the use of potential pollutants as reusable items.

Two illustrations:

— Cull potatoes, and waste potato products, are being processed to produce amino acids, proteins and high-quality starch.

— Dried whey can be used as a food product in making candy and bakery products, and for improving the nutritive value of cereals, fruit juices and soft drinks.

FALL APPLICATION

Applying lime and fertilizer to forage crops in the fall is a practice holding promise.

Fields are usually drier in the fall, and it requires up to six months for the lime to become fully effective.

Fall fertilizing of forage crops is also coming in for serious consideration by many growers. Fall-fertilized alfalfa can go into the winter sleep in much better condition if it has an extra supply of nutrients. Top-dressing pastures in the fall can do for the fatigued grasses what intravenous feeding can do for a hospital patient.

Even small grains that may be pastured can benefit from fall feeding.

SECOND THOUGHT

The federal Environmental Protection Agency is having second thoughts on DDT. It has recently admitted that this highly-controversial pesticide may still have a place in the control of farm pests.

While still favoring the gradual elimination of DDT and the development of alternate pesticides that can be as effective, the Agency admits that there are pests against

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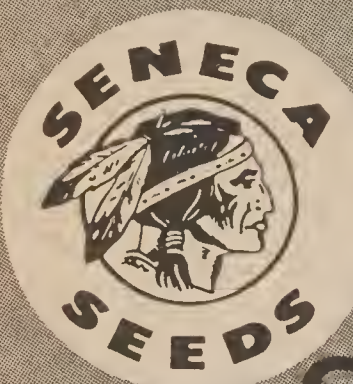
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(Continued on page 21)



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FORESTRY



Consolidation — The New York State Department of Environmental Conservation has announced plans to consolidate its forest tree and wild-life shrubbery operations into a single program at Saratoga Springs Forest Tree Nursery, thus ending operations at three other facilities . . . Lowville, Oak Orchard and Painted Post.

Oak Orchard was closed June 2. The Lowville nursery will be phased out over a three-year period; phase-out at Painted Post will be over the next two years.

Price of seedlings will increase to \$20 per 1,000 . . . up from the current rate of \$10. To obtain trees, persons must have at least one acre of land available for each 1,000 tree seedlings ordered.

For full information, including species of trees available, write: Arthur Woldt, Department of Environmental Conservation, Albany, New York 12201.

Chestnuts — The premium catalog of the Kentucky State Fair offers cash prizes for "evidence of the largest native American chestnut tree, including twigs with leaves attached, burrs if bearing, and statement of inches through the trunk at breast height." So reports conservationist

Henry Converse, Jr., of Greenville, Kentucky.

A number of individuals hope they can speed up nature by cross-pollinating the native chestnut with the blight-resistant Chinese chestnut and come up with a strain of native chestnut that will stay alive and healthy. If you know of an American chestnut tree . . . say about 10 inches in diameter at chest height . . . notify the Northern Nut Growers Association, 4518 Holston Hills Road, Knoxville, Tennessee 37914.

Exit Elm — Another lethal plant disease that attacks elm trees invaded New York and Pennsylvania for the first time this past summer. Known as elm phloem necrosis (EPN for

short), the disease has long been prevalent in the South and Midwest, and plant pathologists expect that it will now spread rapidly eastward.

EPN is caused by submicroscopic organism called a microplasm, which is carried from tree to tree by the elm leafhopper. The organism is injected into the leaves as the insect feeds, then moves downward and kills the inner bark and cambium in the roots and base of the tree. Infected trees tend to die all at once, rather than branch by branch, as do elms suffering from Dutch elm disease.

There's no cure for infected trees. Spraying with chemicals to kill the carrier insects may prevent new infections. Getting rid of diseased or dying elms is as important as it is for Dutch elm disease.

Land Lease — Many individuals and groups have bypassed land-ownership requirements by leasing land from private landowners for recreational uses. Rural landowners also benefit from such arrangements, since rentals provide income to help cover the cost of taxes and improvements.

To help woodland owners benefit from the recreation potential of their land, the USDA Forest Service has conducted a survey in New York State to find out who leases land and why, the kinds of land they lease and how it is used, rental costs, and prospects for future rentals.

Results of the study are published in Research Paper NE-182, entitled "Land for Recreation: A Look at Leasing in New York." To get a copy, write to: Information Services, USDA Forest Services, 6816 Market Street, Upper Darby, Pennsylvania 19082.

Rose Hedge — When establishing a multiflora rose hedge to provide protection and winter food for wildlife, Cornell experimenters advise using black plastic mulch. Young plants get well established without cultivation, and there's no need for tractor and site preparation.

Lay two-foot-wide strips of the plastic along each side of the row of transplants, which should be spaced about a foot apart. Two rows, two feet apart, will make a much better hedge. In this case, three strips of plastic are needed.

Special stakes are sold to anchor plastic to the ground, but stones work just as well.

Coatings — A wide variety of surface textures and fade-resistant colors are available in qualified coatings for plywood which may be factory or field applied. For a descriptive pamphlet and list of manufacturers of coatings, write to American Plywood Association, 1119 A Street, Tacoma, Washington 98401. Ask for Form 68-910.



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Amos Kirby
(Continued from page 18)
which there is no known satisfactory replacement.

In the months ahead, there will most likely be public hearings on lifting some of the present restrictions.

In New Jersey, there is at least one pest . . . the corn earworm . . . against which few (if any) pesticides are as effective as DDT.

The second thoughts on DDT follow another admission by environmental agencies that maybe detergents in washing preparations are not as much of a threat to the environment as originally announced. At least, phosphate detergents will continue to be used, awaiting development of an equally effective material.

EGG PRICES

Control of Marek's disease has saved the lives of a much higher percentage of the birds placed in flocks than was once the case. These added producers have created far more eggs than anticipated. The reduction of Marek's disease has resulted in a rate of lay three percent above a year ago.

Research indicates that birds vaccinated for Marek's are also less susceptible to other poultry diseases . . . even further reducing anticipated mortality.

NEW GRADES

New standards for grading tomatoes for processing may be the next major change in determining the value of this crop. One of the important changes involves more than color. It is centered on determining the value of the usable portion of the tomato. Color will continue to be a factor, but the grower has a right to be compensated for all of the usable portion of his crop.

The USDA is requesting grower and processor comments on the proposed grading change, the first major change in more than 25 years.

IMPROVING INCOME

Four ideas on how poultrymen may increase income during the months ahead come from agricultural agent Charles Dupras (Atlantic County):

—Keep egg breakage down. Breakage of 8 to 20 percent is too high for any producer to show a profit.

—Grow your own replacements. Purchased started pullets cost around \$1.80 each, give or take a few cents. One can raise a good started pullet in the range of \$1.40 to \$1.45 per bird.

—Consider starting an egg route. This applies to both large and small producers. It may not be easy, but in times like today, the margin may be sufficient to add income.

—For small flock owners, it is a good time to get back to the system

of culling, such as they did years ago. Many poultrymen have the idea that, with birds selling at 5-10 cents per pound, they are not worth culling.

Keep in mind that non-producers are eating costly feed, and their board bill is expensive!

BAD NEWS

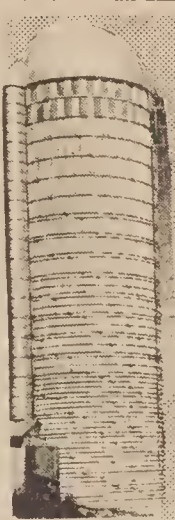
The United Milk Producers Cooperative in New Jersey has apparently reached the end of the financial road, and members are being signed by other milk cooperatives . . . especially Dairy Lea, with whom UMP was affiliated. Industry leaders are pointing to UMP's shipwreck as another symptom of the marketing problems faced by milk handlers.

NEW APPLE

Meet N.J. 38, the official name of a new apple that is an apparent winner in the late summer months. It is bright red, large and firm, resembling the McIntosh in appearance and color. Market acceptance indi-

cates that it is a really good early apple.

Based on 1971 appearance and acceptance, it will be strong competition for such varieties as Early McIntosh, Puritan, Miller Red, Fenton, Beacon and the Red Gravenstein.



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BOWING OUT

Two of New Jersey's largest and most famous dairy farms are going out of the milk business.

Walker-Gordon, Plainsboro, made famous by the late Henry Jeffers... and now operated by Henry Jeffers, Jr. and his son... has halted the production of milk. Ideal Farms, Augusta... owned by Jacob Tannis, Sr. and famed for its Guernsey milk... has also moved out of the dairy business.

Jeffers and Tannis agree that high labor costs, mounting taxes, and a depressed market for milk have caused them to swing to raising beef cattle. Both farms can now be managed with a fraction of the previous

work force, and there are no major Sunday tasks.

Walker-Gordon and Ideal Farms are not alone in the shift away from the dairy business. Today, Cape May County has more trailer camps than it had dairy farms a few years ago!

Despite the shrinking number of dairy farms, there are hundreds of New Jersey farmers who still see a future in the dairy business.

DAIRY CONFERENCE

A National Dairy Housing Conference will be held at Michigan State University on February 6-8, 1973. No, that's not a misprint... the year is 1973!

Why all the early notice? Well, conference organizers... including representatives from nine major professional and government organizations... are looking for program material from anyone interested in dairy cattle housing and facilities.

To help shape the program... or to submit 200-word abstracts or completed papers... contact by November 30, 1971: T. J. Brevik, Agricultural Engineering Department, University of Wisconsin, Madison, Wisconsin 53706.

UDIA ADVISORS

Numbered among first members of the new 15-member advisory board of United Dairy Industry Association

(UDIA) are three of the Northeast's dairy marketing specialists.

Slated to assist in formulating the Industry's marketing objectives are: George O'Brien, Dairy Lea Cooperative, New York City; Ed Peterson, Milk Promotion Services, Montpelier, Vermont; and John Sliter, American Dairy Association and Dairy Council of New York, Syracuse, New York.

The three organizations involved with UDIA include the American Dairy Association, National Dairy Council, and Dairy Research, Inc.

BUILDING PLANS

Have something in mind that you'd like to build? Cabin? Greenhouse? Storage shed? Barbecue pit? Plans for these and many other items are available at prices ranging from 50 cents to \$2... and some are even free.

For a description and price list of plans, write to: Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca, New York 14850. You do not have to be a resident of New York State.

For miscellaneous buildings, like the ones mentioned above, ask for price list 851-0.

URI DEAN RESIGNS

Dr. James W. Cobble, dean of the College of Resource Development at the University of Rhode Island, has announced plans to step down after nine years in the post.

He has accepted a one-year assignment as head of a five-man team of New England state university professors who will help South Korea streamline its agricultural research and education system. He then expects to return to teaching and research in the URI animal science department, which he formerly served as chairman.

In addition to being dean, Dr. Cobble is also director of both the URI Cooperative Extension Service and the Agricultural Experiment Station. He will officially relinquish all three posts no later than June 30, 1972.

Dean Cobble, who is 50, says that he always intended to stay in his position no longer than nine or ten years; now that the changes planned when he became dean in 1962 have been accomplished, he feels it is time for a change and new ideas.

In requesting to be released from his administrative assignments, Dr. Cobble joins Charles Palm of Cornell in announcing retirement plans to be effective in 1972. Dean Leland Merrill at Rutgers retired from the deanship at the College of Agriculture and Environmental Science during 1971.



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"I still want to take a European tour."

American Agriculturist, November, 1971



CROWELL FRUIT FARMS

Mr. and Mrs. Crowell operate the Crowell Fruit Farm, eight miles north of Port Byron (Cayuga County), New York. She says he's the "boss," and she's the only "hired man."

There are 45 acres of apple trees. Half of the apples are sold at the combination storage-stand, at home on route 38. The storage-packing house was remodeled in 1970-71.

The major product at Crowell Fruit Farms is cider . . . they sell 20,000 gallons a year! The apples are dumped on the grading table, and the cider apples go up a used hay elevator to a 150-bushel storage hopper.

They leave the hopper by gravity and roll onto a small automatically-controlled elevator that feeds the grinder. A float switch turns the small elevator on and off as apples are called for by the grinder. This "applesauce" is pumped to the press which squeezes out about 275 gallons of cider per pressing. The cider is pumped and filtered into the cooling tank.

This tank is a 600-gallon wet-wall

(ice-bank) bulk milk tank used to cool the cider. A wet-wall is a must because the cider sugars stick to a dry-wall tank. The tank is set six feet above the floor to allow gravity feed to the containers. An operator can fill three containers at a time. Mr. Crowell hopes to install an endless-belt bottling machine to speed up the filling of containers.

Most of the cider is sold in plastic gallon jugs. Half-gallons and quarts are also available. Some of it is sold to area farmers in their barrels, or Mr. Crowell has some whiskey barrels that you can buy full of cider. Some great things happen to both cider and people when they get a little age on them!

A lot of cider is sold fresh at the stand. Fresh cider must be cooled fast and sold quickly. Preservatives are added to a full tank if the Crowells want to deliver a load to the city stores. — *Gerald Stevens*

HIGH SPUDS

Lemuel Morrell grows 250 acres of potatoes at an elevation of about 1,800 feet, near Avoca in Steuben County, New York. There are more than 1,000 acres in the farm, 600 of which are tillable. In addition to potatoes, Lem grows oats, wheat, and some hay.

Liquid complete fertilizer is used . . . 700 pounds per acre of 10-10-10 plowed down, followed by 1,100 pounds per acre of 9-6-6 applied by the planter. That plowed down is applied by the fertilizer supplier.

The Morrells try to keep soil pH

in the range of 5.4 to 5.6. Massive applications of fertilizer tend to make a soil more acid, so periodic liming is required.

Most potato growers are on the horns of a dilemma . . . sweeter soils have a higher yield potential, but the organism causing scab also flourishes when pH levels rise. "I like to see a little scab . . . acceptable scab . . . now and then," Lem comments. "That tells me that pH levels are close to the point where yields can be highest without having spuds rejected by the chippers."

He presently sells his entire crop . . . half Kennebec and half Katahdin . . . through a Pennsylvania broker to a chipper in the Keystone State. Seasonal laborers pick up potatoes, and they're shipped out when dug except for 10,000 bushels

stored in a remodeled barn at the Morrell farm.

Di-Syston goes on with the fertilizer applied by the planter. This systemic insecticide holds off the bugs during most of the growing season. Sometimes Sevin has to be used as a late spray before digging begins, if the systemic "runs out of gas." Fungicides . . . mostly Dithane M-22 . . . are applied by boom sprayer (14 rows at a sweep) every 10 days.

At about the middle of July, the potato country of Steuben County is a sight to behold. Hundreds of acres of potatoes are in full bloom across the hilltops of the Southern Tier. One of Lem's potato fields is nearly a mile long . . . a mile of beauty in July, and a whale of a lot of good eating in October! — *G.L.C.*



Two New York Staters took top honors at the last National 4-H Automotive Care and Safety Contest . . . Wayne Warner, Riverhead and Judith Drew, Newfane.

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REMEMBER, ALL PIONEER PRODUCTION FOR 1972 PLANTING IS IN NORMAL CYTOPLASM. Take some time right now. Check the chart. Then place your order with your Pioneer salesman while supplies of Pioneer "leader" hybrids are still good.

Hybrid	Kind of Cross	Heat Units Required G.D.U.	Dry Down Rate	Stalk Score	Root Score	Harvestability Score	Early Vigor	Kernel Texture	Suggested Population*
3873	DX	2350	4	4	4	3	4	M. Hard	16-20,000
3959	3X	2360	4	3	4	4	3	M. Hard	18-22,000
3956	SX	2360	4	3	3	4	3	M. Soft	19-23,000
3853	DX	2380	4	4	3	3	4	M. Hard	16-20,000
3909	SX	2390	4	4	3	4	4	M. Hard	19-23,000
3784	SX	2400	4	4	4	4	4	M. Hard	18-22,000
3773	SX	2470	4	4	3	4	4	M. Hard	18-22,000
3571	MSX	2610	4	4	4	4	4	Med.	19-23,000

KEY: 1-Fair, 2-Good, 3-Very Good, 4-Outstanding.

*Suggested Populations are for final stands and would depend on fertility levels and soil type.

KIND OF CROSS: SX—Single Cross, DX—Double Cross, MSX—Modified Single Cross, 3X—3-Way Cross

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Dollar Guide



UNITED MILK PRODUCERS, a dairy cooperative in New Jersey, is reported at the end of the line financially. Other cooperatives ... Dairy Lea, Eastern Milk Producers, National Farmers Organization ... are signing up UMP members.

Dairymen have been lulled by comparatively good milk prices into sense of euphoria about the market, but milk handlers ... both cooperative and individual ... have long been in economic squeeze.

"**ACID STORAGE**" has come to the Northeast ... the use of proprionic and acetic acids to preserve high-moisture corn (HMC) in an unsealed pile stored most anywhere under a roof. Celanese Corporation is doing commercial test marketing of its product, ChemStor, in 12 states, including Pennsylvania. Similar product, called Grain Storer, is being sold in Midwest.

Both organic acids occur naturally in ruminant animals, so preservative has feed value, as well as inhibiting molds. Look for major interest in this method of storing HMC in 1972 across the Northeast.

EGG PRODUCERS are worried that egg sales in U.S. have been down 9 to 12 percent in 1971 as compared to comparable periods in 1970 ... even though average price has been 15 to 18 cents less per dozen. Eggs have been lambasted heavily of late by those claiming that cholesterol causes heart trouble.

BRUCELLOSIS VACCINATION will not be paid for by public funds in NYS after January 1, 1972. State has been certified brucellosis-free since 1967 by federal standards, and authorities say it is no longer necessary to vaccinate all calves.

State will continue to provide vaccine, ear-tags and report forms, but vaccination will be on voluntary basis ... and the dairyman pays vet.

TAX RELIEF should spur farm economy ... looks now that Congress and President will agree on: investment credit at 7 percent on equipment ordered after last April 1 ... excise tax (7 percent) on cars, and the 10 percent on light trucks will be repealed ... individual taxpayer will also get income tax reduction.

EGG PRICES (NY, fancy, large white, wholesale) for the 12 months beginning October 1, 1971, are expected to average 38 cents a dozen ... two cents above preceding 12 months. Costs are predicted to be one to two cents/dozen lower, largely because of lower feed prices.

CATTLE FEEDING should be profitable enterprise for 1972. Cheaper grain, plus consistent growth in demand for beef, point toward good profit margins for finished cattle. Demand for beef has held up remarkably well during 1971's national economic troubles.

BULL PERFORMANCE can best be analyzed on basis of "Predicted Difference" and "Repeatability." The first term estimates how much gain in milk production can be expected from daughters of the bull, as compared to herd mates ... the latter is an index of how reliable is that estimate.

SOIL TESTS of 29,418 samples in Maryland revealed 37 percent with pH levels of 6 or below ... dramatizing widespread need for application of lime.

CLASS I USE in July 1971, amounted to only 36 percent of total milk delivered in the Puget Sound Order #125 area. Production in that order area increased by 6.5 percent between May 1970 and May 1971 ... in spite of Class I Base Plan.

PUBLICATION entitled "Legislation to Permit Agricultural Districts in New York" (A.E. Ext. 595) is available from: Dept. of Ag. Economics, Warren Hall, Cornell University, Ithaca, N.Y. Tells how Empire State farmers can start procedures to create designated areas where farming has first priority of land use.

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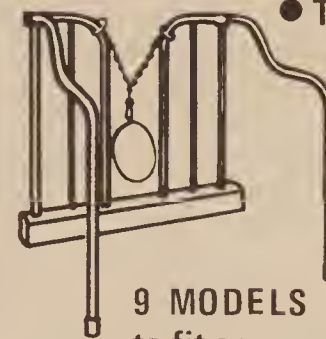


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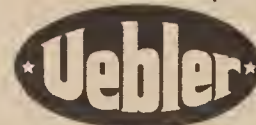
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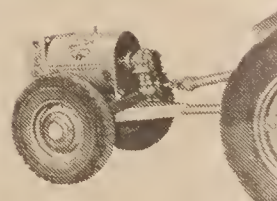
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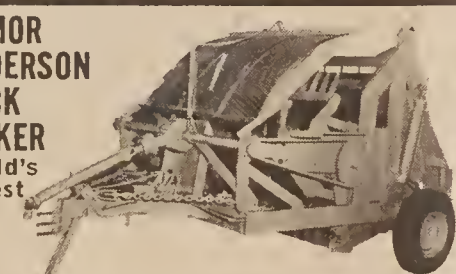
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American Agriculturist, November, 1971



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We will fly to **Mexico City** where we begin our vacation in this fascinatingly different land. While in the Mexican capital, we'll see the National Palace, Metropolitan Cathedral, Chapultepec Park, University City, the Shrine of Guadalupe, Pyramids of the Sun and Moon, and attend a bullfight in the world's largest bull ring.

Near Mexico City we will visit the quaint and interesting towns of **Queretaro** and **San Miguel de Allende**, a popular art center because of its picturesque setting. It's impossible to tell you all we will see and do in Mexico, but following are brief descriptions of just a few — not necessarily in the order we will visit them.

In **Guanajuato**, a former silver mining center, we'll see the Art Institute and many other historic sites. **Patzcuaro** is situated on one of Mexico's loveliest lakes. We will enjoy a boat ride to the primitive island of **Janitzio** where native Indians still fish with aboriginal butterfly nets.

In the lovely city of **Morelia** with its Old World atmosphere, we'll see the ancient aqueduct and one of the most beautiful cathedrals in Latin America. The colonial charm of **Taxco** has been preserved by Governmental decree. We will walk along its winding cobblestone streets, search the shops for treasures in silverware, and watch the native craftsmen fashion beautiful hand-made jewelry.

We travel over the dazzling Sierra

Madres Mountains to **Cuernavaca**, city of Eternal Spring. Here in the 16th Century, the Spanish General Cortez built a great palace which is preserved to this day. We'll also see the ancient cathedral and beautiful Borda Gardens.

On our way to **Puebla**, we travel through miles of breathtaking scenery, climbing the shoulders of snowcapped "Popo" and "Sleeping Lady" and passing interesting Indian villages. In **Puebla** we visit the magnificent cathedral, a pottery factory and the onyx shops.

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Another fine winter vacation is our **Florida Circle Tour** from **February 19 to March 4**. A few of the places we will visit are **St. Augustine**, **Marineland of Florida**, **Kennedy Space Center**, **Lion Country Safari**, **Key West**, **Everglades National Park**, **Ringling Museum**, **Cypress Gardens**, **Bok Singing Tower** and last but not least, the brand new "Wonderful World of Disney." Here in one package are the places you've always wanted to see in Florida!

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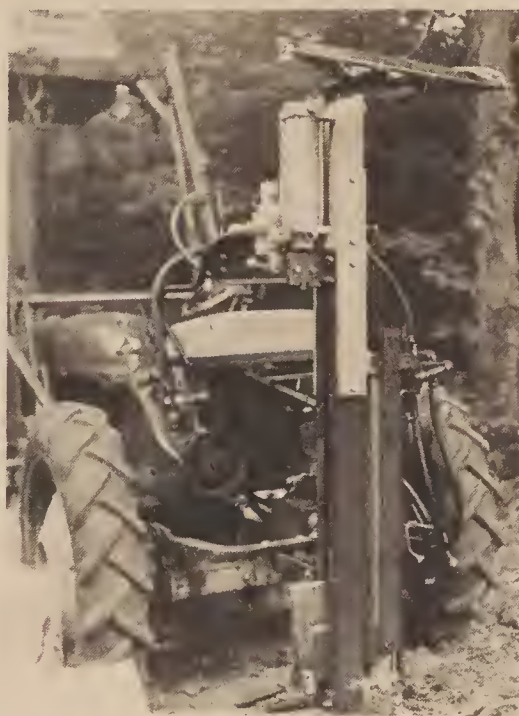
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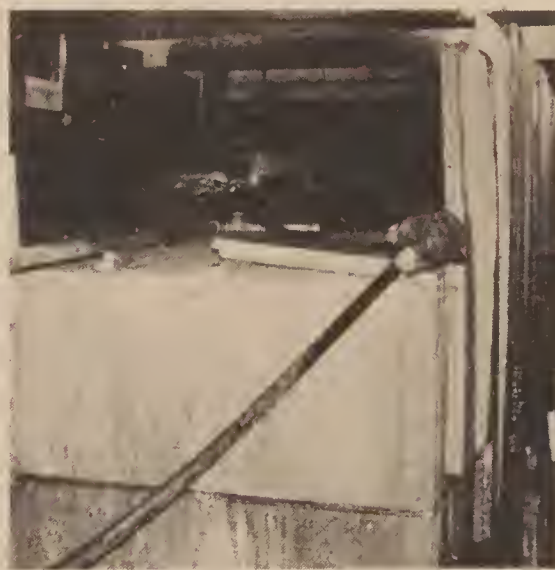
GOOD NEIGHBOR SYSTEM

Merton Lincoln and his family operate a 34,000-bird poultry farm near Naples, New York. The Lincolns have been experimenting with waste disposal methods, and have come up with an unusual system.

The building involved is 40×224 feet, containing four rows of modified stair-step cages (each 18×24 inches). Prior to the recent change, there were dropping boards under the upper cages . . . birds in lower cages dropped manure directly into a gutter below.

Merton replaced the dropping boards with home-built troughs (measuring 48"×200') made of styrofoam; the same material was placed in the gutters under the cage rows (each 52"×200'). Liquid is pumped into these troughs from one end . . . cleaning manure as it goes . . . then returns to a settling tank.

Part of it then goes back again to a cage row, part is piped to a "floc tower." This consists of three sprinkler heads above styrofoam sheets that are placed in a vertical position, so that droplets percolate downward through the styrofoam and back again to the tank. Aerobic bacteria digest waste in the troughs and on the vertical sheets, as well as in the liquid as it moves.



Three sprinkler heads distribute liquid across vertical sheets of styrofoam, where aerobic bacterial digestion flourishes.

(Continued on next page)

Merton estimates that about 20 percent of the total original waste is eventually left from the digestion process to pump back on the land with an irrigation pump. He wants to develop a modification which will allow final disposal by either irrigation, or by drying the material.

He calculates that the new method of disposal is more economical than his previous system of spreading. Most of all, though, the Lincolns like the absence of odors . . . appreciated also by all the neighbors.

In fact, Merton labels the setup his "good neighbor system"!

SUNFLOWERS

In a past issue, AMERICAN AGRICULTURIST commented on the sunflower growing activities of William Austin, R.D. 1, Geneva, New York.

Growing sunflowers in the northeastern part of the United States is unusual. They are typically more common in the Midwest.

Two other northeastern farms producing sunflowers include Saltonstall Farms, south of King Ferry, New York . . . and the Quaker Hill Farm of K. C. Livermore in the town of Mendon (Monroe County) on route 251.

Mr. Livermore reports growing 30 acres of sunflowers in one field . . . a sight that has attracted many passersby. Bird enthusiasts estimate that this one field would produce enough sunflower seeds to keep at least 5,000 cardinals happy all winter!

BIG FAMILY FARM

Kenneth Van Slyke of Pike (Wyoming County), New York, teams up with sons Gary and Greg in the operation of the 250-cow Van Slyke's Dairy Farms.

Corn is the big gun here in providing feed . . . 282 acres of it in 1971 on the Van Slyke spread, plus 100 more grown on rented acreage. In addition, forage needs are met from 216 acres of hay crops, mostly put up as haylage. A two-row pto chopper handles corn silage and



An irrigation pump moves final product from this storage tank to disposal on land through a single nozzle.

hay-crop silage (stored in three 30×60 silos), and makes high moisture ear corn (HMEC) for filling a 20×60 silo.

The HMEC is fed out at the rate of at least two inches per day, enough to prevent spoilage. All grain is fed in the feed bunk; the double-six herringbone parlor is not equipped for grain feeding.

There are 12 milking units in the parlor . . . two employees (a father-son combination) milk and do cleaning chores in the milking parlor and milkhouse on a schedule of five consecutive days "on," followed by one day off. It takes three to three-and-a-half hours for each milking; cleanup chores extend their total working day to about nine hours.

Divided

The herd is divided into four groups . . . high (over 60 pounds of milk per day), medium (40-59 pounds), low (under 40 pounds), and the dry cows. The milking herd receives only silages for roughage, but the dry cows also receive five pounds of dry hay per cow per day. The Van Slykes hope the hay will reduce the incidence of displaced abomasum, ketosis, and retained afterbirth . . . the latter two of which they blame primarily on overconditioning.

Looking ahead to the winter feeding season, the Van Slykes plan feeding the milking herd $\frac{2}{3}$ corn and $\frac{1}{3}$ haylage (by volume) as roughage . . . along with a 24-percent-protein grain mix. At times, both corn and hay-crop silages are not available. When only corn silage is being fed, the grain ration contains 33 percent protein. If only hay-crop silage is available, the protein level of grain is cut to 20 percent.

Experiment

Presently, the stalls in the free-stall barn are earth underneath (coated with sawdust), but the Van Slykes aren't pleased with this combination. They're experimenting on a small scale with concrete for stall floors, coated with three layers of polyurethane to provide insulated, sanitary surfaces.

Other unusual features here . . . three overhead fans, each five feet in diameter, blow air into the free-stall barn all summer . . . the entire herd has feet trimmed by a professional trimmer each year . . . daily manure disposal involves four spreader-loads one day, five loads the next in the 255-bushel spreader.

Tours of nearby farms are a feature of Empire Farm Days each year, and Van Slyke's Dairy Farms were involved in the 1971 event. Farmers from all over the Northeast came by to look over a big and efficient operation . . . not a hobby farm, but one managed on a daily basis by the three owners. — G.L.C.

BLENDED RATION

The Drapers . . . Laurence and son John . . . are operating a 300-acre farm just east of the Rose Hill House on route 96A south of Geneva, New York. There are 125 free stalls in the recently-constructed barn; there are 150 grade Holstein cows here (including those that are dry).

No grain is fed in the milking parlor . . . in fact, it was designed

with no grain feeding in mind. The herringbone stalls are formed in front by a partition faced with ceramic tile "seconds" . . . the same material forming parlor sidewalls . . . but there are no grain-feeding buckets.

The Drapers had dairy-farmed before on another farm, and their experience told them that top-producing cows couldn't eat enough grain during the time they were in the parlor. Furthermore, they noted that cows jostled each other to get extra grain . . . and eating grain always seemed to stimulate leaving a deposit before the cow left the parlor. "Now," John says, "the parlor is for milking only. The cows don't expect to eat, so they stand

(Continued on page 28)

John Draper (right) and herdsman Donald Abrams adjust milking parlor equipment. Note ceramic tile forming walls and restraining partition. No grain is fed in parlor.



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(Continued from page 27)

still. Furthermore, we have very little manure to clean out of the parlor at the end of milking."

Wastes from the milkroom and parlor go to a settling tank measuring 12×14×12 feet. Settled-out solids are cleaned from this tank annually by a backhoe; liquids move on continually to a leach field. Manure left in the parlor at each milking is picked up by shovel and placed in the free-stall area to minimize solids going to the tank . . . but water from the 300 psi washing-gun goes into the settling tank, with whatever solids it brings along.

Because no grain storage was planned above the parlor, that space is used to house the milking system's

vacuum pump, the bulk tank's cooling compressor, hot water tanks, and the pump creating high water pressure for the cleaning gun.

The basic roughage ration includes corn silage and haylage . . . plus 5-6 bales of dry hay per day for the 125 cows in the milking herd. Both types of silage are combined . . . along with a purchased 23-percent-protein pelleted grain . . . in a "Little Augie" slow-speed mixer with a two-ton capacity. The mixer is equipped with electrically-operated weigh-cells that make precision possible in determining how much of each ingredient is being added.

The mixer delivers, just like a regular side-unloading wagon, the mixture into the feed bunk . . . timed at about 8 a.m., noon, and 6 p.m.

The milking herd has the mixture in front of them at all times, except when they've cleaned it up for an hour or two before the earliest feeding on some days. Eventually, the Drapers plan to split the herd according to milk production levels, and feed grain to each group at different levels.

Here's another in a growing list of dairymen who are placing their bets on a total ration mixed in advance of being offered to the cow. And, although they are interested in milk output **per cow**, they have as a higher priority output **per man** . . . feeding and handling cows in bulk, rather than by the traditional method of tailoring grain feeding to individual milk production. — G.L.C.

TAPERED PLANTS

The Todd family grew cauliflower for many years near Stamford in Delaware County, New York. Due to a variety of reasons, 1971 marked the first year in many decades when they no longer produced this vegetable in the Northeast.

However, George Todd is still very much in the cauliflower business . . . as a partner in Leisey and Todd Farms, Inc. at Ruskin, Florida. In addition, he is president of Speedling, Inc., a company formed to produce vegetable seedlings for transplanting.

A major innovation is the use of specially-designed plastic flats with voids in the form of inverted pyramids. Seedlings are grown in Cornell Peatlite Mix (peat and vermiculite), plus a special fertilizer formulation.

George reports enthusiastic reception of the idea . . . with 25 million seedlings produced in 1970, and 50 million in '71. The company is in the process of expanding through franchise-type operations with qualified growers.

For details, contact Todd at P.O. Box 7098, Sun City, Florida 33586.

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DIVERSIFIED

The Dunham family of Knowlesville (Orleans County), New York . . . brothers Richard and Kenneth, their Uncle David, as well as their father Howard (now retired) . . . have a number of farm enterprises. Dick and Ken are in partnership in the operation of 75 acres of bearing apple trees, and also a beef enterprise feeding out 300 steers annually. Dick also has a very sizable hog business.

Grain for feeding, as well as for sale, comes from 400 acres of corn . . . plus some small-grain and hay acreages.

Buildings

There are two buildings at the Dunham farm especially designed for hogs. One is a farrowing house measuring 26×152 feet, built in 1967. It has concrete-slat floors, and an aeration ditch underneath. A 5-hp electric motor "paddles" air into the slurry, and moves it continuously around the channel.

Dick reports no odor in the building, and practically none even when

(Continued on next page)

Dick Dunham holds a little porker born not long ago in the farrowing house.



American Agriculturist, November, 1971

spreading manure drawn from the ditch. "I cleaned out the ditch thoroughly in 1968," he comments, "but haven't done so since. I do draw out about 12 loads per year to keep the level down, but haven't had to really empty it." The spreader used to draw manure holds 1,500 gallons.

The farrowing house is designed to handle 50 sows. It is heated by natural gas... radiant-heat devices that each warm two farrowing pens.

Combination

The combination nursing and finishing house... measuring 36x120 feet... was built in 1970. When it's at capacity, it will hold 800 pigs. The wee ones come over from the farrowing house after weaning at 4 to 5 weeks of age (weighing 15 to 20 pounds). Although there are concrete-slat floors here too, there is no oxidation ditch underneath. Instead, there are two separate pits... one under the nursery area, and another under the fattening section.

The 190 sows are crossbreds... a combination of Duroc, Yorkshire and Hampshire. Purebred boars are bought in the Midwest; about 10 are on the duty roster.

Between 2,500 and 3,000 hogs are marketed from the Dunham farm each year... many as feeder pigs through the feeder pig sale at Caledonia, New York. Market hogs go to the Buffalo stockyards... or to the "hog pool" sale, also at Caledonia.

If you visit the Dunhams, you may be surprised to see a cabin cruiser chugging sedately through what appears to be a field... and at an elevation above adjacent land. Don't change your brand... just remember that the Barge Canal goes within a long stone's throw of Dick's house! — G.L.C.

BUNKER SILOS

Near Nunda, New York, Wesley Foote operates a 120-cow dairy farm. He puts up 2,500 tons of corn silage a year in three bunker silos... a 24x100, a 50x150, and a 24x80. Some medium-moisture haycrop silage is also put up in the bunkers. A 16x40 upright silo holds high-moisture ear corn (HMEC).

To meet the silage needs for 1971, Wes planted 225 acres of corn, harvested 100 acres of hay crops. For corn, he plowed down 110 pounds of nitrogen per acre, then used 250 pounds of 10-20-20 in the planter. He shoots for a planted population of 25,000 per acre.

No Hay

No dry hay has been fed to the milking herd for several years. The winter roughage ration is 70 pounds of silage per cow per day (10 haylage, 60 corn silage), fed three times each day. Dry cows get hay as a roughage, though... Wes has had his share of displaced abomasums, and hopes the hay helps prevent it when cows are heavy with calf. "I never had any DA's during the years I fed hay as a major roughage," he reports. "With the cost and scarcity of labor the way it is now, though, we'll never go back to hay."

He started farming in 1954, working a farm in another area on shares. The Footes bought their present homestead in 1955, and have been

adding land... as well as buildings, equipment, and livestock... ever since.

"If it hadn't been for the Farmers Home Administration, I couldn't have gotten started," Wes comments. As his net worth grew, so did his credit rating... and he now borrows from a bank.

The FHA once approved a loan application for building a 20x70 upright silo at Foote Farms, but Wes did some mental arithmetic that changed his mind. "When you're short of capital, you're forced to be hard-nosed about deciding which investment pays off the most and the quickest," he says.

"I decided to build a free-stall addition to the barn instead, along with a milking parlor... and put up

another bunker silo. This provided space for more cows, and increased labor efficiency."

What about the airtight upright storages that cost far more than bunkers? "I'm not against 'em," Wes says. "In fact, I'd sure like one for storing high-moisture corn! The desirability of an expensive silo depends on many things... including a dairyman's capital reserves. If they're tight, then there are lots of other investments that will pay off faster!"

Along the hard road toward acquisition of large hunks of capital, the Footes suffered a cruel blow when a corn picker grabbed Wes's left hand in December 1956. It was in a cast for two years, and left medical bills going into five figures.

Five years later, the scars are still there, but Wes is able to handle equipment about as well as before the accident.

The Footes have three girls... aged 16, 14, and 13... who help their mother and father carry the load. A full-time hired man, and a high-school boy in summertime, round out the work force.

The payoff for all their efforts, of course, is gathered in the 1005-gallon bulk tank (it's a Zero T-20) in the milkroom next to the double-six herringbone milking parlor. But Wes has not overdone the business-payoff orientation... having served in local service organizations, on the school board, and presently as president of the Dairymen's League local. — G.L.C.

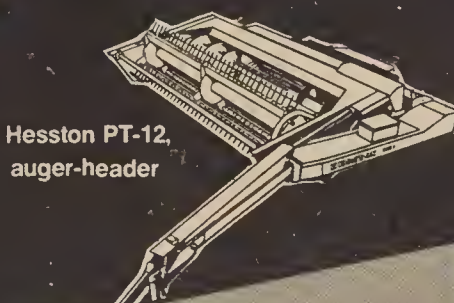
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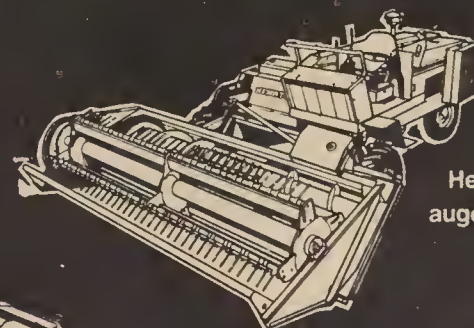
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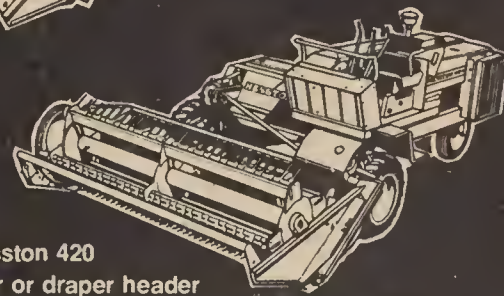
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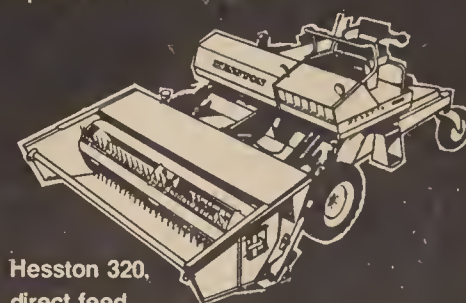
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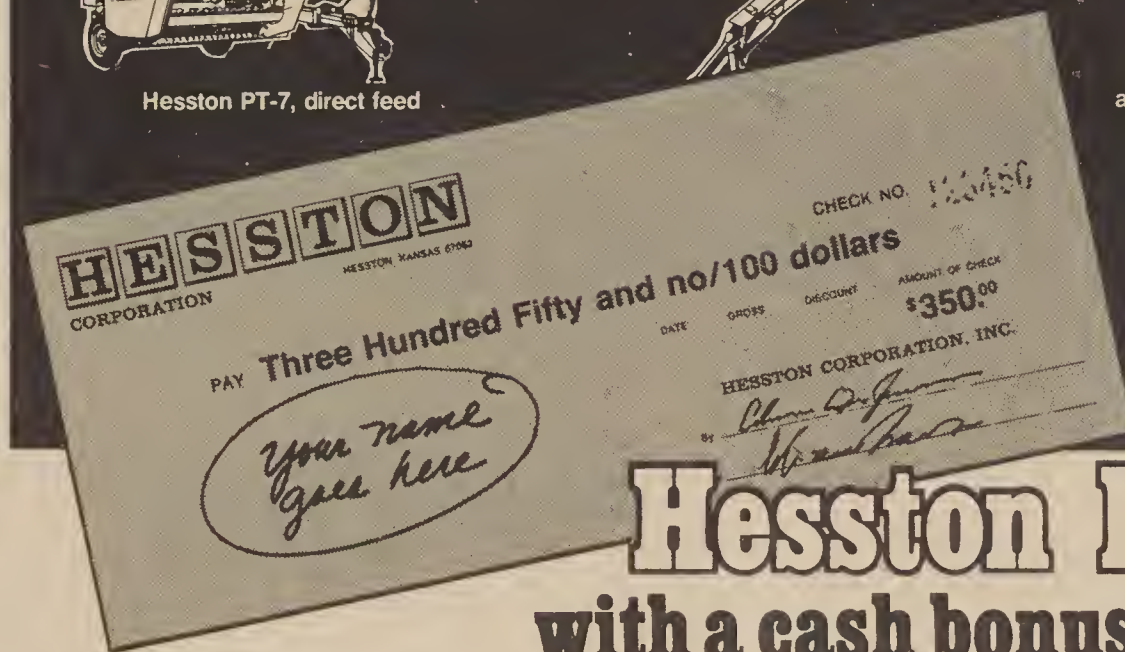
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BEST COOKS AT THE FAIR!

by Alberta Shackelton

375 COOKS competed for coveted blue ribbons, special awards and grand prizes in the Culinary Arts Competition featuring "Favorite American Recipes" at the New York State Fair in Syracuse this fall. Included during the week were **Bake-In** for those 18 years and under, **Country Fare**, **With Spirit** (use of wine), **The Final Touch** (spice and herb), **Vegetables — Plain and Fancy** and **Versatile Fruits**. Scoring and choosing winners of the 1600 food entries kept a panel of well-qualified judges busy all week!

Grand prize winners were announced at an Americana Party the last day of the Fair by Mrs. Helen Carey, Competition Superintendent. Following are the winners' names, the prizes they won, and their recipes, which are printed (with some editing) as I received them from the Fair Office.

First — a Hotpoint Portable Dishwasher (Agway, Inc., donor), won by 13-year-old Stephanie Doodigian of Syracuse for her **Loaf of White Bread**.

Second — a Steuben Bowl (R. T. French Co., donor), won by Mrs. P. J. Falise of Baldwinsville for her **Sour Cream Coffee Cake**.

Third — an Osterizer Blender (John Oster Manufacturing Co., donor), won by Esther Rowin of Rochester for her **Raspberry Jam**.

Fourth — a Decorative Wall Clock (Syroco, donor), won by Mrs. Edward Roorda of Spencer for her **Figure Eights** (most unusual cookie with spices).

Fifth — an Electromatic Skillet (Corning Glass Works, donor), won by Mrs. Davice Chimine of Tully for her **Temptation Torte** (most unusual cake using spices).

Sixth — a Salton Hotray (W. S. Owen Co., donor), won by Mrs. Anthony Impellizzeri of North Syracuse for her **Carrot Cake**.

WHITE BREAD

- 1 cup milk, scalded
- 3 tablespoons sugar
- 2 teaspoons salt
- 4 tablespoons shortening
- 1 cup warm water
- 1 package dry yeast
- 5½ cups sifted all-purpose flour

Add sugar, salt and shortening to scalded milk and cool mixture to lukewarm. Sprinkle yeast over warm water in a large bowl and let stand for 5 minutes. Stir in the milk mixture and then the flour in two additions. Beat vigorously until well blended and dough is soft.

Remove dough to floured board and knead until smooth; shape into a ball. Place ball of dough in greased bowl and cover with cheesecloth. Let stand until dough has doubled in size (about 1 hour). Divide dough into two equal parts, shape into loaves, and place each loaf in a greased bread tin. Cover and let stand 1 hour, or until double in bulk.

Bake in a hot oven (400°) for 30 minutes or until done. Use a toothpick to test for doneness. Remove

from oven and pan; cool loaves on wire rack. Cool before slicing or storing.

SOUR CREAM COFFEE CAKE

- ½ cup butter or margarine
- 1 cup sugar
- 2 eggs
- 1 teaspoon vanilla
- 2 cups all-purpose flour
- 1 teaspoon baking powder
- 1 teaspoon baking soda
- 1 cup sour cream
- ¼ cup sugar
- 1 teaspoon cinnamon
- ½ cup chopped nuts
- 1 cup confectioners' sugar
- 2 tablespoons milk

Cream together the butter and sugar; add eggs one at a time, beating well after each addition. Stir in vanilla. Sift together the flour, baking powder and baking soda and add alternately with sour cream to the butter-sugar mixture.

Spread less than half the batter in the bottom of a greased 9-inch tube pan. Combine sugar, cinnamon and nuts and sprinkle over batter. Pour remainder of batter evenly over top. Bake in a moderate oven (350°) for 45 minutes, or until it tests done. Remove from pan and while still warm, pour glaze made by combining confectioners' sugar and milk over top of coffee cake.

RASPBERRY JAM

- 5 cups prepared raspberries
- 1 box Sur-Jell
- 7 cups granulated sugar

Crush thoroughly **fully ripe** berries. Put fruit in large 6 or 8-quart kettle. Mix in Sur-Jell thoroughly. Bring mixture to a hard boil over high heat, stirring occasionally. At once add sugar. Bring to a full rolling boil (one that cannot be stirred down) and boil hard for one minute, stirring constantly. Remove from heat and skim off foam. Ladle into hot sterilized jars. Cover with hot, melted paraffin.

FIGURE EIGHTS

- 1 cup flour
- ½ cup butter
- Pinch salt
- 4 tablespoons water
- 1 cup sugar
- ¾ teaspoon cinnamon

Mix flour, butter and salt as for pie crust, cutting with two knives until fat is size of small peas. Add water slowly, mixing with a fork until all flour is moistened. Flatten dough on Saran Wrap and chill in refrigerator for 1 hour. Roll out and fold together; place in refrigerator for a half hour. Roll out again and fold; chill for another half hour.

Roll dough to ⅛ inch thickness. Cut with a pretzel cutter. If you do not have a pretzel cutter, cut dough into long strips (6 inches long and ¼ inch wide) and form each strip into a figure eight.

Mix sugar and cinnamon together. Lay cookie pieces on this mixture. Hold one end and roll cookie on sugar, stretching it until paper thin. Place cookies, sugar-coated side up, on ungreased cookie sheet and bake



Grand prize winner Stephanie Doodigian is presented a certificate for a Hotpoint dishwasher by State Fair Director Bernard W. Potter. Stephanie's entry was a loaf of white yeast bread.

Mrs. Parker Scoville of Goshen, N. Y., foods judge at the Fair, presents the second grand prize, a Steuben bowl, to Mrs. P. J. Falise for her sour cream coffee cake.



in moderate oven (350°) for about 15 minutes, or until lightly browned. Remove from cookie sheet while hot.

TEMPTATION TORTE CAKE

- 3 cups pecans, ground
- 3 tablespoons all-purpose flour
- 1 teaspoon baking powder
- 1 tablespoon poppy seeds
- ¼ teaspoon salt
- 6 eggs, separated
- 1¼ cups sugar

Combine nuts, flour, baking powder, poppy seeds and salt and set aside. Beat egg yolks and sugar at high speed in electric mixer until thick and pale yellow; set aside. Beat egg whites to soft peaks at high speed (be sure bowl and beaters are **completely free** of any trace of yolks).

Fold nut mixture carefully but thoroughly into beaten whites. Then fold in the yolk mixture. Pour batter into two 9-inch cake pans, greased and lined with waxed paper. Bake 25 to 30 minutes in moderate oven (350°), or until surface springs back when lightly touched with finger. Cool pans on racks 5 minutes; then remove layers and cool thoroughly.

FILLING

- ½ cup butter
- ¾ cup sugar
- 2 packets premelted baking chocolate
- ½ teaspoon vanilla
- Few drops Mexican vanilla
- ½ teaspoon cinnamon
- 2 eggs

Cream butter and sugar well; add chocolate, vanillas and cinnamon and beat well. Add eggs, one at a time, and beat until pale chocolate color and very smooth. Spread half the filling on one cooled cake layer.

Top with other layer and spread remaining filling just on top, swirling decoratively.

Chill several hours or overnight. To serve, placed chilled cake on attractive serving platter. Beat 1 pint well chilled heavy cream, ½ cup confectioners' sugar, ½ cup dry cocoa and ½ teaspoon cinnamon with chilled beaters until stiff. Spread frosting on sides of cake.

CARROT CAKE

- 1½ cups salad oil
- 2 cups light brown sugar
- 4 eggs
- 2 cups whole wheat flour
- 2 teaspoons baking soda
- 2 teaspoons baking powder
- 1 teaspoon salt
- 2 teaspoons cinnamon
- 3 cups ground carrots
- 1 cup ground walnuts
- ½ teaspoon vanilla

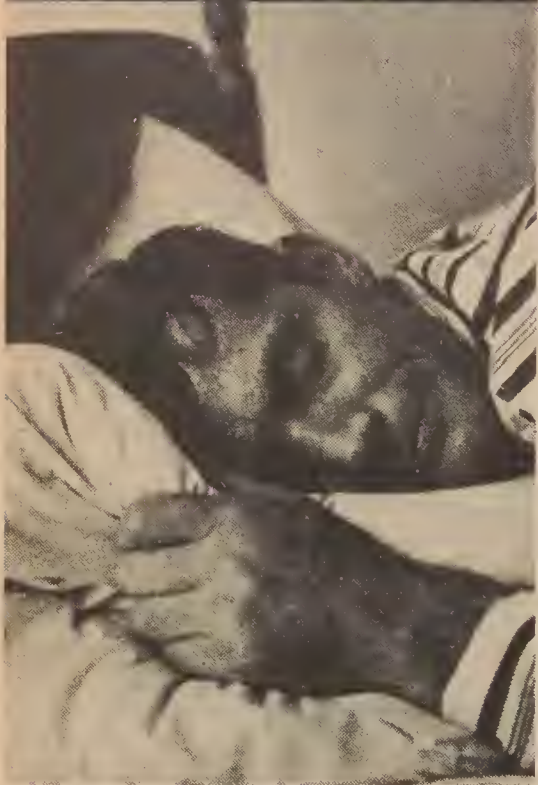
Blend sugar and oil and add eggs one at a time, beating well after each addition. Sift together and add flour, baking soda, baking powder, salt and cinnamon. Blend well. Add carrots, walnuts and vanilla and blend well. Pour into greased and floured Bundt pan. Bake in moderate oven (350°) for about 60 minutes, or until cake tests done.

FIRST SNOW

It takes tugging and grunting
To stuff my child in her bunting,
Zipped tight to shed frosty air.
Though I've shoved and I've pushed
Til I'm practically bushed,
NOW she wants to go you know
where . . .

by Dixie Laslett Thompson

sleep well



Chores all done. A fine meal. Got some paper work done and watched some TV. It sure is easier turning in at night knowing some important things never go to sleep. Like the protection from Farm Family Insurance Companies. Covers the whole farm, too. Buildings. Equipment. Even family and personal belongings. Here's a company that proves they know farm problems by all the different plans and programs they have. You might say you owe it to the farm to talk with a representative from Farm Family. Chances are you'll sleep a little better.



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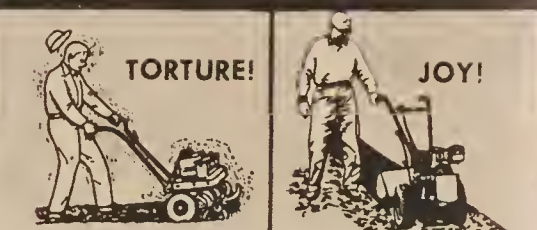
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American Agriculturist, November, 1971



GARDEN TALK

by Doc and Katy Abraham

Maybe it sounds crazy to tell you to keep mowing your lawn in November, but we like to see a lawn go into winter mowed short. Many homeowners forget their lawns in fall and let them go into the winter with four or five inches of growth. This invites all kinds of disease and is one reason we have a lot of "snow mold" (brown patches of grass) in the spring.



If you put in shrubs or evergreens (or non-evergreens), give them a good soaking before freezing weather sets in. Plants that go into the winter with plenty of moisture in the soil have a better chance of coming through the winter.

Ferns Indoors

Few plants are more satisfactory for the home than ferns. Here are a few hints for growing them.

Sunlight — Ferns need light but NOT direct sunlight. Too much light is harmful and is the cause of sickly, yellowish-green appearance of leaves. An east or north window is fine.

Soil — Ferns need lots of humus. Try a mixture of one-third each sand, peat and loam, along with some broken charcoal.

Repotting — One reason why ferns do so poorly is that they are seldom repotted. Repot every two or three years and divide them when the pots are full of roots. Another sign that repotting is needed is when the plant seems to rise out of the pot. Repotting can be done any time of year. Plants do best in pots just large

enough; avoid too large a pot. Crown should be level with the soil surface.

Note: Ferns must have good drainage. That's why it's a good idea to put some broken crockery, cinders or charcoal in the bottom of the pot. Ferns should never stand in a saucer or jardiniere of water. This causes yellowing of leaves.

Temperature — Ferns don't like hot temperatures. Give them a cool room (60 to 70 degrees), away from radiators, and out of direct sunlight. When the tips of fronds turn brown, it may be due to the room being too warm, or possibly to people brushing against the foliage. Ferns like plenty of elbow room.

If your ferns develop long strings, remove them at once; they take strength from the plant and have no value. Ferns like to be groomed — reach in and remove dead twigs. As for insects, be on the lookout for scale and mealybug. To control mealybug, dunk the plant in a mixture of malathion and soapy water. If scales are present, hand-pick and burn them (or feed to your goldfish).

Skunks In Lawns

A good many lawns are dug up in fall and spring, causing consternation to homeowners. Usually, the culprit is a skunk, searching for grubs, worms

and insects. Skunks are highly beneficial, since their food consists of pests which live in your lawn.

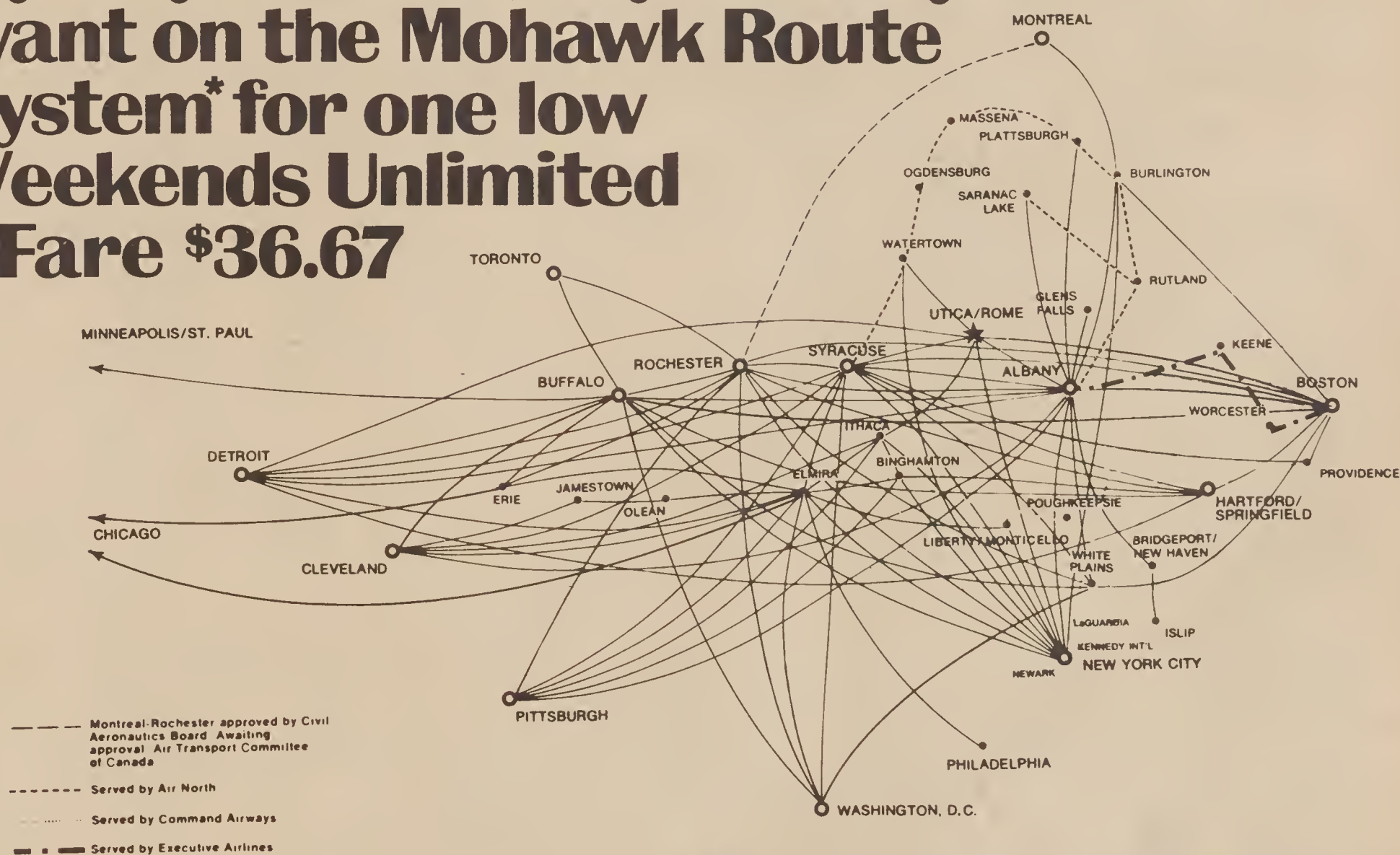
Control: Put up with the skunk. We hesitate to recommend chemical treatment which merely kills the grubs and insects. This shuts off the food source and drives the skunks over to neighbors' lawns. When you rake debris from the lawn next spring, sow a little grass seed, within a couple weeks you'll never know the difference.

AA Garden Clinic

A reader writes, "Two of our choice silver maples (14 years old) developed slits in the bark, running up from the base to about 10 feet. Should anything be done to these trees to protect them from winter cold?"

Answer — Your trees are suffering from winter injury ("Southwest Injur"), common among maples. This type of injury usually occurs only on the southwest side of the trunk. This side gets more sun and heats up; then a sudden drop in temperature causes the bark to split. You should trim off any loose bark, back to live tissue, and whitewashing the trunks with lime and water will help prevent this type of injury.

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COUNTRY COMFORT

by Geraldine Ross

Every winter my stepfather, who was a carpenter, was out of work for weeks or even months at a time, but we never went hungry. My mother's thrift, skill and hard work, aided by our willing hands, filled our root cellar and our basement and pantry shelves to overflowing.

We had land enough to grow most of what we needed. Though vivid horizons beckoned and shimmered, many a golden day of spring was spent sowing, weeding, hoeing, cutting armfuls of pieplant (rhubarb to you), or grinding horseradish till our eyes smarted. Fall meant shucking sun-dried navy beans, "clearing" the garden, and clambering up fruit trees for apples, crab apples and plums.

We grew currants, grapes and gooseberries, but we earned our raspberries by picking on shares those grown on neighboring farms. This meant we had to toil for days, our faces more or less shielded with netting and our arms and legs covered with lengths of worn cotton

stockings against hordes of hungry mosquitoes. Chokecherries, highly prized for jelly, grew wild, and we were ready when they were!

Crocks of feathery kraut, a brimming barrel of carefully chosen apples, and jugs of cider marched along the cellar floor. Every inch of space held squat jars of jelly and jam, tall jars of pickles, catsup, chow-chow, corn relish, sweet-sour beans and beets, spiced fruits and canned tomatoes.

Popcorn, hot peppers, and parsley and celery leaves (dried and powdered, the last two add wonderful flavor to sauces, soups and stews!) hung from our attic rafters. Big yellow, white and red onions, along with hazelnuts gathered from nearby woodland patches (despite the chattered protests of squirrels), dried on the splintery floor. We even dried and saved, in carefully labeled envelopes, most of our next year's supply of seed.

When the first snow fell, we were prepared for months that might have been bitter, with need. On early evenings, the hens we had raised from balls of peeping yellow fluff clucked sleepily in coops banked with dried leaves and corn husks, and we all but clucked too, as drowsily content as they.



VISITING

with
Home Editor Augusta Chapman

Every good gift and every perfect gift is from above and cometh down from the Father . . . James 1:17

We humans are inclined to be such an ungrateful folk that it's good we're reminded each November to bow before God and give thanks. Very often we take for granted all that we have and assume it is ours because of our hard work and mental acuteness.

We're likely to forget that our hard work would be in vain, and there'd be no harvest, if God did not give us sunshine and rain in the proper balance. If we're blessed with good health, we forget that physical or mental illness could quickly take away our ability to earn a good living for our families. And if God were to permit the flood of atheistic communism to overflow America, as it has many other countries, what would happen to the freedoms we accept as our heritage?

Truly, all that we hold dear — our country, our churches, our homes and loved ones, our good way of life — is from above. Have a happy Thanksgiving, and may each of us remember to be genuinely grateful.

An Unusual Cookbook

After World War II — and longer ago than I enjoy counting back — Bob Smith (Robert S. Smith), now Professor of Farm Finance and Agricultural Economics at Cornell Uni-

versity, and I worked together in Veterans' Housing at Cornell. Bob and Mary were resident managers of the Tower Road housing area, and I was in the main Residential Halls office on campus.

I have seen Bob a few times since coming with **AMERICAN AGRICULTURIST**, and the other day he brought in a book he wanted me to see. It's "High Maples Farm Cookbook," with the sub-title "Favorite recipes and family stories of New England farm life." The author is Edna Smith Berquist, one of Bob's six sisters.

The first part of the book is a delightful story of growing up on a farm near Laconia, New Hampshire, in the early years of this Century. The second part contains 275 recipes — family recipes from four generations of Smiths with a few historic "receipts" thrown in for good measure. I haven't had a chance to try any of the recipes yet, but if Bob leaves the book here a while longer, I'll be tempted to take it home.

"High Maples Farm Cookbook" was published this summer by The Macmillan Company. Look for it in your bookstore, for I know you'll enjoy it.

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May my cart have wheels that work right
 'Stead of wheels that do the steering;
 May the aisles be uncluttered
 With no boxes interfering;
 May the specials be all products
 To my shopping list adhering;
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by Frances D. Lawrence

American Agriculturist, November, 1971

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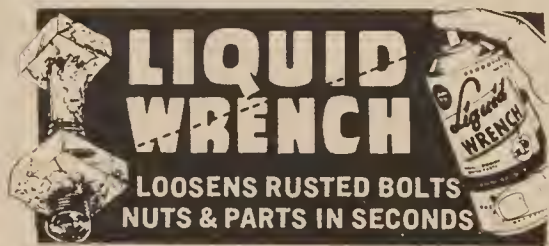
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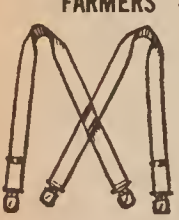
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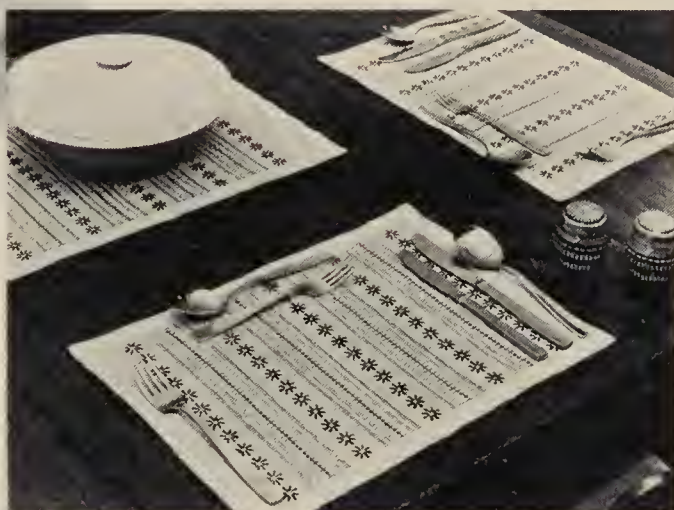
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American Agriculturist, November, 1971

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Nick Moser, who writes "The Passing Parade" in the Reading (Pennsylvania) Eagle, comments:

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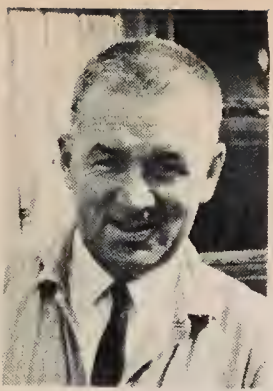
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Doc Mettler Comments on:

FOOT TROUBLES

A few days ago, while listening to the car radio, I heard a meteorologist say that November 29 would start a cycle of wet weather such as we had in September. My first reaction was, "A late, wet fall will mean lots of cows with sore feet," and I could feel my back ache already!

As I drove along, I came up with the thought that sore feet are not seasonal as much as they used to be; with modern confined housing, the time of the year makes little difference to the cow.

An experience this past year with confined cattle gave me some thoughts on foot problems in modern free-stall housing, and discussions with other veterinarians and dairymen have confirmed that the history of this herd is not unique.

Case History

Last January, a herd of 60 Holsteins was moved from a conventional stanchion barn to a new totally confined cold-type (not insulated) dairy complex, entirely on concrete, with rubber mats in the free stalls.

I had heard that the first year on concrete could cause a lot of sore feet, but that by the end of the year the individual cows would either be toughened to the concrete... or be out of the herd.

I told the owner and he said he, too, had heard this. He had also heard from some that the new concrete, being rough, would wear the feet down too fast, and from others that if the concrete was not kept clean the feet would not wear down fast enough and would require a lot of trimming. He had weighed the problem against the labor-saving advantage of confined housing, and had decided to go along with his plans.

Kept Clean

Floors in the new barn were kept clean and, though wet, they seldom had a build-up. It was found that a small amount of sawdust on the mats kept the cows cleaner and prevented hair from wearing off the hocks.

Cows never left the confined area

except during the dry period. This new complex made use of the lock-up stanchion I described several months ago in the *AMERICAN AGRICULTURIST*; the whole herd could be locked up for needed examinations.

Each call I made to the dairy was with curiosity and some apprehension. Like most veterinarians, I would rather work on cattle in surroundings I am used to... conventional barns

...but I know that to stay in dairying, changes have to be made by both the dairymen and the veterinarian. I was apprehensive, however, of sore feet.

Hard Job

I enjoy doing pregnancy exams and almost everything else on a dairy farm, including milking cows, but treating sore feet is a dirty, hard, dangerous job. Every large-animal veterinarian I know who has practiced any length of time has a certain amount of back trouble from doing foot work.

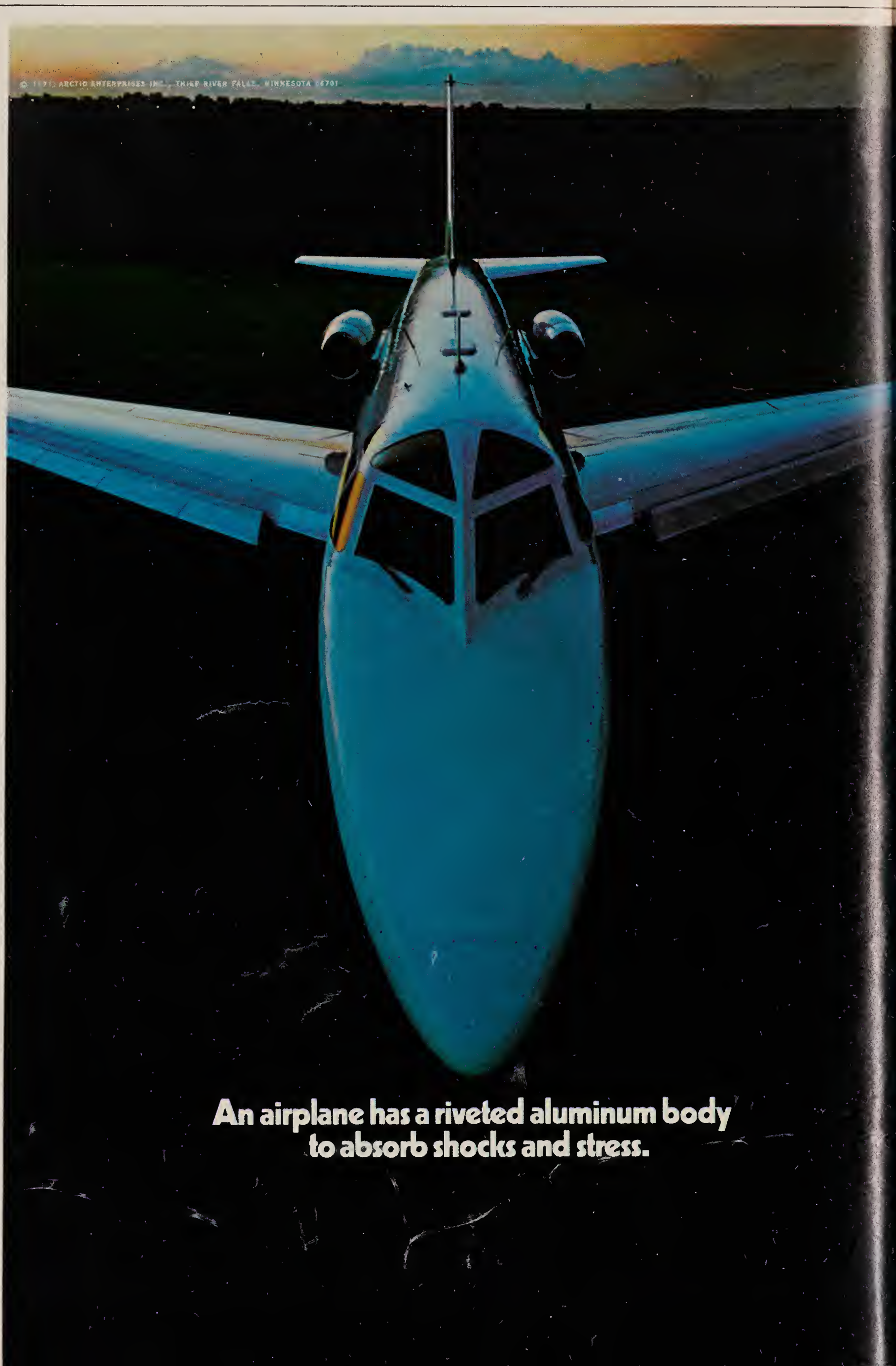
Much to my pleasure, each call went by with no mention of sore feet. In the spring, the herd was classified and the classifier remarked to the owner that the feet were the

best he had seen in any herd. He wondered who trimmed them, and found it hard to believe that... other than a few cows in the dry barn... not a cow had been touched with a chisel, hoof knife or rasp.

A few weeks later, a visitor remarked about a peculiar gait he had noticed in the cows. Since the floor was wet, they did have a certain "walking on ice" look to their walk, but I have yet to see any injury from slipping.

Problems

Until late August, everything went fine as far as feet were concerned, and then one day there was a lame cow. When I saw her, my first impression was that it was a stifle injury. The next day I lifted and



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FLETCHER THE 4-H'ER
© JOE E. BURESCH



"HONESTLY, FLETCH, SOMETIMES I THINK YOU GAVE ME YOUR 4-H RING SO YOU COULD GO STEADY WITH OUR REFRIGERATOR!"

examined the foot, just to be sure, and much to my surprise the lameness turned out to be caused by "gravel."

By "gravel," I mean an abscess along the inside of the hoof wall, caused by a tiny stone working in along the white line. These are usually treated by opening and draining them and then packing with a good foot powder and bandage.

If not taken care of, they will open up at the top of the hoof and are slow to heal. Two weeks later, there was a second one similar to the first, and then a third case with a stone in the heel showed up.

Where did gravel come from in the confined barn? The owner recalled that he had changed his sawdust storage in early August and in

doing so had scraped up the old area, bringing in lots of stones and gravel with the last few carts of sawdust. The soles on a cow's feet are smooth but quite thick, giving the appearance of a hoof that has been rasped from the bottom. These soles are soft from the constant wet surface and it is easy to see how a tiny stone could imbed and penetrate.

I have seen herds in free-stall barns where the bedding was sand containing stones up to 1/4 inch in diameter where every call I made included a cow or two to check for lameness. Gravel-type lameness is not uncommon in herds confined to areas where part of the surface is concrete and part dirt containing stones.

Quite a few years ago, when

cinders were available in our area, a few dairymen put cinders in bull yards. These cinder-lame bulls were some of the worst cases of "gravel" I have ever seen.

Conclusion

From this latest experience . . . and from past experience . . . I have drawn a conclusion about confined free-stall housing. Cows can take concrete very well as long as they do not have access to small stones.

Each one of these lame cows gave the appearance of a cow that was just sore or that had a joint injury.

The abscess and stones it contained were not found without lifting the foot with a rope and searching carefully with a hoof knife. I can see how the rumor about cows being

sore-footed from concrete could have been incomplete diagnosis.

Cold wet rain, deep wet snow, or a weather report that was wrong will not make much difference to the cow in the confined free-stall barn. I am no longer apprehensive about the future of dairy farming; in fact, I feel it is quite exciting. There is no question but that we are going to have problems, but I think our dairymen, and research people in our colleges and industry who do research for dairymen, are smart enough to find the answers to these problems.

TREND IS TRENCH

In southern Cayuga County, New York, the big majority of the big farmers are going big bunker silo. Call 'em trench or call 'em bunker, either way the silage is stored on the ground.

The Nolan Brothers at Venice Center filled a 226' x 60' x 10' bunker with some 6,000 tons of corn silage. It will hold 275 acres of chopper-snorting corn. The contractor's estimate of the cost to construct this giant was about \$12,000 . . . just one part of a new dairy complex at the Nolan farm. This winter, almost 300 cows will be ruminating their way through this pile of corn.

Others

You don't have to travel far to find bunkers or trenches at several neighboring dairy farms, including a new one filled for the first time this fall at Carl Botsford's place near Scipio Center. Carl did finish his in time to fill the bottom third with haylage; the top two-thirds is corn silage.

Carl says, "That sure is the way to hay it! This being a self-feeding bunker, we hope to eliminate a large machinery investment by letting the cows eat their way through the pile. With a herd of less than 100, this should work pretty good."

Bancroft and Dillon have had a covered 600-ton bunker for 12 years. They haven't filled an upright silo in 10 years . . . although there are two good cement-stave silos on the farm. "A covered, self-feeding trench just offers too many advantages to ever go back to the towers," is the way Bancroft puts it.

Ray Head at Venice Center has a 40' x 60' bunker. He says he finds the quality to remain equal to that stored in the cement-stave upright. "I know, because we had it tested. It's the cheapest way I've found to store 400 tons," Ray says.

— Gerald Stevens



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To show more care and vigilance.

— Graham Hunter

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December Issue.....Closes November 1

January Issue.....Closes December 1

February Issue.....Closes January 1

ADVERTISING RATES

35 cents per word, initial or group of numerals. Example, J. S. Jones, 100 Main Rd., Anywhere, N. Y. Phone Anywhere 15R24, count as 11 words. Minimum charge \$3.50. Blind Box Number \$2.40 extra, includes address. Send check or money order to AMERICAN AGRICULTURIST, P. O. Box 369, ITHACA, N. Y. Advance payment is required.

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CENTRAL NEW YORK AREA. A 174 acre dairy farm with 100 tillable acres. Has barn for 40 cows and 12 heifer stalls. There is a new bulk tank and 14 x 40 concrete silo. House has 8 rooms with aluminum siding and new oil heating system. Priced at \$35,000 bare. Call Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc. at R.D. 4, Middletown, N.Y. 10940.

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FOR SALE: FARM, 60 acres with large house, large barn. Write John Tower, Newburg, Maine 04445.

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WANTED: FARMS, ACREAGE, timber lots in Maine, New Hampshire, Vermont or Massachusetts. Top price paid. H. Brower, 20 Wachusett Rd., Chestnut Hill, Mass. 02167.

FARM WANTED: Minimum 75 plow acres, radius 100 miles Albany, with good barn. Full particulars, please. Box 369-ZK, Ithaca, N.Y. 14850.

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COMPANION FOR FATHERLESS home. Must like animals. Write P.O. Box 198, Bantam, Conn. 06750.

MANAGER FOR EGG Processing Plant located in Northeast. Must be experienced with automated equipment and must have sales ability. Send resume to Box 369-ZN, Ithaca, N.Y. 14850.

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STOP RUSTY WATER from ruining wash, staining fixtures. Proven filter keeps water free from rust, sand, odors, tastes, other impurities. Low cost, reusable replacements. 30 day trial offer. Write Samcor, 836-Q West 79th, Minneapolis, Minn. 55420.

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"PROGRESSIVE WINEMAKING". The one indispensable book for the home winemaker. Complete step-by-step details including scientific theory necessary for finest wines. Reveals how to imitate famous European wines. 28 chapters; 425 pages. Only \$2.95 postpaid. Guaranteed. Werth Wine, Box 1902BH, Cedar Rapids, Iowa 52406.

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SPLIT GIANT ROCKS economically! Terrific 2000 degree kerosene torch, 99 practical uses. Destroys stumps, sprays, dries concrete. 800,000 users. Free literature. Sine, NY3, Quakertown, Pa. 18951.

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FALL INVENTORY CLEARANCE. (1) New International 434 diesel high clearance \$2995.00. (2) Two new unused Massey-Ferguson 1100 fully equipped \$7285.00 each. (3) One new Ford 4000 gasoline selecto speed large tires \$4545.00. (4) Three David Brown 1200 diesel demonstrators 12 speed, power steering, large tires \$4285.00 to \$4685.00. (5) Several 1968-69 Ford 5000 diesels, low hours from \$3995.00 to \$4995.00. (6) New model International 454 and 574 diesels w/roll bars or cabs. Several in stock. (7) Ten new Ford 5000 diesels in stock standard equipped \$5258.00. (8) Eight late model low hour used County and Muir Hill. For rent or sale, standard equipped \$7995.00. (9) Five new 4-wheel drive in stock. (10) 98 new and late model low hour used tractors consisting of Ford, David Brown, Massey-Ferguson, John Deere and International, plus 28 older used tractors in stock ready for immediate delivery. Note: will rent any and all used tractors with 100% of rent to go upon our net purchase price. Dick Brady Farm Tractor Sales Inc., P.O. Box AA, Fairview (Erie Co.) Penna. 16415. Phone 814/474-5811.

THE TILLERS



NEW & USED EQUIPMENT

SILO UNLOADER - BADGER 16', 5 H.P. motor, \$350.00. Massey 44 tractor, needs work, \$100.00. N. Kellar, 610 Rte. 32 N., New Paltz, N.Y. Tel. (914) 331-8900 or 255-1740.

80 HP 4 WHEEL DRIVE Diesel Tractors \$8500, del. Kubota 26 HP Diesel Tractor, fully equipped, delivered \$2650. Corn boxes \$225. 2 gleaner combines with corn head - cabs. New 40 HP diesel crawlers \$5600. Fully equipped. Don Howard, Canandaigua, N.Y. 14424.

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FOR SALE: Dairy processing equipment for the dairy farmer or jugger who desires to bottle and pasteurize own milk up to 3,000 quarts daily. Includes 1,000 gallon tank truck and short time triple tube pasteurizer. This complete line of equipment has been in use at a successful cash and carry dairy store that has been sold for a commercial shopping center. Willard C. Lipe, Lipe's Dairy, Cazenovia Road, Manlius, N.Y. 13104. Phone 315/682-6171.

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For correct fit, give saw name, bar cutting length, pitch used or number of drive links in chain. Send check or m. o. to
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SHELLED CORN

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NO HUNTING SIGNS, Mailbox — Lawn Markers, Farm Signs, Special Signs, Printing all kinds. Sample catalog. Signs, 54 Hamilton, Auburn, New York 13021 Dept. G.

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PLASTIC POSTED—Land Signs. Durable, inexpensive, legal, free sample. Minuteman, Box 344, Pawling, N.Y. 12564.

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ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 370, Ithaca, N.Y. 14850.

WANTED TO BUY

WANTED: GLEASON'S, BALLOU'S, Harper's, Harper's Bazaar, Leslie's, Vanity Fair, Puck, Police Gazette Weekly Newspapers to 1890. Singles or bound. Scientific American. American Heritages. Any other similar material. Barber, 28 Prospect Ave., Ilion, N.Y. 13357.

COLLECTOR PAYS CASH for old jewelry, beaded purses, children's books with colored pictures, 1920's and earlier. Send items and prices to Kagan, R4, Mason, Michigan 48854.

WANTED: OLD CONVERTIBLE automobile 1926-1936. Any condition, running or not. J. Fass, 5 Howell Place, Newark, N.J. 07106.

WANTED . . . GOLD, SILVER, Platinum (any form), Coins. Information Free. Wil-mot's, 1067 Bridge, Grand Rapids, Mich. 49504.

WATCHES WANTED—Jewelry, spectacles, dental gold, silver. Prompt remittance. Satisfaction guaranteed. Lowe's, PO Box 13152, St. Louis, Mo. 63119.

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FREE WILDLIFE CATALOG: Waterfowl, Big Game & Game Bird Prints; Christmas Cards, Custom Frames, etc. Write Wildlife Reproductions, Dept. AA, 604-543 Granville St., Vancouver 2, B.C., Canada.

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Wayne Hamilton prizes this gasoline-powered Huber tractor made in Marion, Ohio about 1919. Farm tractors had just emerged from the era of steam locomotion.



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Wayne "Bump" Hamilton rents a sizable chunk of the wondrously-productive river-bottom flats just west of Geneseo, New York. Included in his 1971 crops were 370 acres of beans (all black turtle soup), 40 acres of field corn, 75 of wheat, and 250 acres of sweet corn. Proof of "Bump's" corn-growing abilities includes a complete weighing of the field-corn crop from 25 acres in 1970...showing an average yield of 154.4 bushels of dried shelled corn per acre! Most of this corn is sold to area farmers as high-moisture shelled corn at picking time.

Crop production isn't the only item of interest at the farm, officially called "W. W. Hamilton and Sons." The Hamiltons also have an extensive collection of antique farm tractors...on display on the west side of state route 63 near the college buildings at Geneseo, and next to a new Methodist church.

The Hamiltons are interested in acquiring other vintage tractors...contact 'em by writing: Wayne Ham-

ilton, South Street, Leicester, New York 14481. — G.L.C.

FFA AWARDS

Regional award winners at the recent National FFA Convention in Kansas City were:

Soil, Water and Air Management—Mike Poppenwimer, Tyrone, Pennsylvania.

Poultry Production — Stanley Rapp, Medford, New Jersey.

Sales and/or Service — Delmas Carson, Alum Bank, Pennsylvania.

Agricultural Production — Alvin Schlouch, Narvon, Pennsylvania.

Outdoor Recreation — Stephen Shaw, Limestone, Maine.

Home Improvement — George Flint, Salem, New York.

Fish and Wildlife Management — Gregory Bell, Limestone, Maine.

Dairy Production — Gerald Parry, Sherburne, New York.

Crop Production — Timothy Edgecomb, Limestone, Maine.

Agricultural Mechanics — William Skellen, Kendall, New York.

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35¢ a word

10 Word Minimum

\$3:50

WORD COUNT: Figure one word for initial or group of numerals. Example: J. S. Jones, 100 Main Rd., Anywhere, NY 14850. Phone 607/273-3507, count as 10 words. Zip code free. Blind Box Number \$2.40 extra, includes address.

DEADLINE FOR ADS: The 1st of month preceding month of issue. (Example: May issue closes April 1.)

Send advance payment by check or money order to:

AMERICAN AGRICULTURIST, P.O. Box 369, Ithaca, N.Y. 14850

(PLEASE PRINT OR TYPE COPY—FOR ADDED WORDS, ATTACH SHEET)

1				4
5				8
9				12
13		minimum		16
17				20
21				24
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BATAVIA Batavia Agway Farm Store
BATH Harold's Army & Navy
BATH M. J. Ward & Son
BAYSHORE Gertz Dept. Store
BELMONT Wayne Feed Supply Co.
BINGHAMTON Binghamton Agway Coop.
BINGHAMTON Dick's Sporting Goods
BINGHAMTON Hank's Men's Shop
BINGHAMTON Norman Uniform Co.
BRIDGEHAMPTON Bridgehampton Agway
BROOKLYN Marks Place
BURKE Whitneys Farm Supplies
CALEDONIA William Hamilton & Son
CANANDAIGUA Benham Elevator
CANANDAIGUA Charles Outhouse Feed & Coal
CANDOR Catatunk Sporting Goods
CANTON Grasse River Agway
CANTON Northern N.Y. Bulk Milk Producers
CATSKILL A. R. Jones
CAZENOVIA Buyeau's
CENTRAL ISLIP Central Islip Agway
CENTRAL SQUARE Shaw Shoe Store
CHATEAUGAY Chateaugay Agway Coop., Inc.
CHATEAUGAY Chateaugay Coop. Marketing Assn., Inc.
CHAZY Wayne Feed Supply Co., Inc.
CHATHAM Brown Shoe Co.
CHITTENANGO Sanford B. Hatch
CHURCHVILLE Churchville Agway
CLAVERACK Claverack Agway
CLINTON CORNERS Agway, Inc.
COBLESKILL Greene Shoe Store
COBLESKILL Schoharie Co. Coop.
COBLESKILL Wohl Dept. Store
COHOES Cramer's
CORNING Harold's Army & Navy
CORTLAND Cortland Agway Farm Store
CUBA Cuba Agway
DANVILLE Dansville Agway
DANVILLE Maple St.
DANVILLE Dansville Farm Supply
DANVILLE 210 Spruce St.
DELHI Perry Shoe Service
DELHI Delhi Bootery
DEPOSIT Sunny's Shoe Store
DRYDEN Dryden Agway
DUNDEE Dundee Agway
DURHAMVILLE S. Esengard
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FAIRPORT Fairport Agway
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FORT PLAIN Exchange Inc.
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FULTON Fulton Agway Coop., Inc.
GAINESVILLE Hardys Branch of Perry Agway
GASPORT Lockport Agway
GENEVA DiDuro Shoe Store
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GOUVERNEUR Gouverneur Coop. Assn.
GOUVERNEUR Sol Kaplan's, Inc.
GREENE Greene Agway Coop.
HAMILTON John's Shoe Shop
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HEMLOCK Hemlock Agway
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HILTON Hilton Agway
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HOLCOMB Holcomb Agway Farm Store
HOLMESVILLE Herbert W. Reed
HOMER Homer Men's & Boy's Store
HOPEWELL JUNCTION Lilje Villagers Shoes
HORNELL Hornell Agway
HORSEHEADS Elmira Agway
HUNTINGTON STATION Huntington
INTERLAKEN Interlaken Agway
ITHACA Harold's Army & Navy
ITHACA Ithaca Agway
ITHACA Sturm Bros.
JAMAICA Gertz Dept. Store
JAMESTOWN C. L. Carnahan Corp.
KATONAH Charles Dept. Store
KNOWLESVILLE Knowlesville Farm & Home Store
LE ROY Country Store
LINWOOD Linwood Agway
LITTLE VALLEY Gramco, Inc.
LIVERPOOL Toni's Family Shoes
LIVINGSTON MANOR Siegels Dept. Store
LOCKPORT A & B Sport Center
LOCKPORT Perry Shoe
LOCKPORT H. H. Rhinehart, Inc.
LYONS The Men and Boys Shop
LYONS Paliotti Shoe Store
LYONS FALLS Lyons Falls Farmers
MACEDON Townsend Grocery
MALONE Agway, Inc.
MALONE Check-R-Board
MALONE National Army Stores
MARION Marion Agway
MELROSE Calhoun Equipment Co.
MIDDLETOWN Middletown Agway
MIDDLETOWN Farm Store
MIDDLETOWN Roberts Shoes
MILLERTON Agway, Inc.
MILLERTON John Clark (IBA Agent)
MILLERTON The Millerton Store
MONTAUR FALLS Guild Bros.
MORAVIA Jennings Dept. Store
MOUNT KISCO Bill's Army & Navy
MOUNT VERNON Chamber's A & N
NEW BERLIN I.L. Richer Co., Inc.
NEWARK Phil's Shoe Store
NEWARK Newark Agway Coop., Inc.
NEWBURGH Devitt's Agway
NICHOLS Nichols Agway Coop.
NORTH BANGOR Dwyer's Farm Center
NORTH CHILI Higbie Farm Supply
NORTH COLLINS North Collins Agway
NORTH SYRACUSE Nolans Shoe Store
NORWICH Joe Selkowitz
ODESSA Odessa Agway
OGDENSBURG Ogdenburg Agway
OGDENSBURG Rite Exchange
ONEIDA C. G. Dutcher
ONTARIO Hermann's Agway
OWEGO A. J. Hollenbeck & Son
OWEGO Owego Agway
PAINTED POST Indian Village Shoe Store
PALMYRA Palmyra Agway Coop., Inc.
PENN YAN Penn Yan Agway
PENN YAN Hamilton Place
PENN YAN Penn Yan Farm Supply, Inc.
PENN YAN 143 1/2 Seneca St.
PENN YAN Smith Shoe Store

PERRY R & S Agricultural Supply
PHELPS Phelps Agway
PHOENIX Garrett Shoe Store
PINE BUSH Pine Bush Agway
PLATTSBURG Plattsburg Agway
PORT CHESTER Levine's A & N
PORT CHESTER Sam's A & N
POTSDAM Clyde Davis Feed & Farm Supply
POTSDAM Potsdam Agway
POTSDAM Potsdam Feed & Coal Co., Inc.
RED HOOK Wilken Brothers, Inc.
ROCHESTER Ruben's Royal Uniform Co.
ROME Anthony Barone Shoe Sales & Service
ROME Flemma's Shoe Store
ROME Rome Farm Store
RUSHVILLE W. B. Martin
SAYVILLE Sayville Sport Shop
SCHAGHTICOKE Hoosac Valley Farmers Exch., Inc.
SCHENECTADY Bi-Mor Gov't Surplus
SCHENECTADY Rudnick Corp.
SCHENECTADY Neil O. Sheldon
SCHENEVUS Milton Brandow
SCIOPO CENTER Krueger Feed & Supply
SENECA FALLS Ceo & Rutz Shoes
SENECA FALLS Farmco, Inc.
SHERBURNE D. K. Hodges
SHERBURNE Sherburne Agway
SIDNEY Sidney Agway Coop., Inc.
SKANEATELES Rolands Men & Boys Store
SOUTH DAYTON Austin Milling Co.
SPRINGVILLE Concord Agway
STAFFORD Cowards Feed Store
STILLWATER Corcoran & Cowin Agway
SYRACUSE Charneys Shops, Inc.
SYRACUSE Eastwood, Fairmount Fair
SYRACUSE Westvale & Camillus Plaza
SYRACUSE DeJulio A & N
SYRACUSE Sam Young Shoe Store
TROY Pressman's Inc.
TULLY Tully Agway Coop.
VERNON Vernon Army & Navy
WALTON Tony's Shoe Store
WALTON Walton Farm Store
WARWICK Howard Quackenbush & Son
WATERTOWN Max Alpert, Inc.
WATERTOWN Apex Military Supply
WATERTOWN Walter H. Bisnett, Inc.
WATERTOWN Jefferson Bulk Milk Co-op.
WAYLAND Raubers Agway
WELLSVILLE Ludden Shoe Store
WELLSVILLE Wellsville Agway
WEST CHAZY Stuart Dragon Feed
WEST WINFIELD West Winfield Agway
WHITEHALL Whitehall Branch Agway
WHITESVILLE Whitesville Agway Coop., Inc.
WHITNEY POINT Ken's Clothing
WILLIAMSON Williamson Fruit & Veg. Coop. Assn.
WINDSOR Windsor Agway
WOLCOTT Edwards Shoe Store
WOLCOTT Wolcott Agway
YONKERS Mendel's
BLDMFIELD Bloomfield Farmers Exch.
BRIDGEPORT Fairfield Clothing Co.
BRIDGEPORT Liberty A & N Store
BUCKLAND Agway, Inc.
CANAN Bob's Clothing
CANAN Roger's Shoe Store
DANBURY Bargain World
DANBURY Markoff's
DANIELSON United Coop. Farmers, Inc.
EAST HARTFORD Industrial Uniform Co.
EAST HARTFORD Seapark's Dept. Store
ELLINGTON Ellington-Vernon Farmers Exch.
ENFIELD Vincent's Apparel
GLASTONBURY A. Kamin's Dept. Store
GREENWICH B & G Army & Navy Store
HARTFORD Sam's A & N
JEWETT CITY Belangers Shoe Store
MIDDLEFIELD Agway, Inc.

CONNECTICUT

NEW HARTFORD P. H. Roberge & Son
NEW LDNON H. Marcus & Co.
NEW LONDON Schablen's
NEW MILFORD Agway, Inc.
NEW MILFORD Ruwet-Sibley Equip., Inc.
NIANTIC Shoe Centre
NORTH FRANKLIN Kahn Tractor & Equip., Inc.
NORTH HAVEN Agway, Inc.
ORANGE Big & Tall Men's Apparel
PLAINFIELD Agway, Inc.
PORTLAND Anderson Farm Supply
ROCKVILLE Dan Baker Shoes
SOUTH NDRWALK B & G Army & Navy Store
SOUTHINGTON Baker Shoes
SOUTHINGTON Grimaldi Shoe Store
STAMFORD B & G Army & Navy Store
STAMFORD Summer Ave.
STAMFORD B & G Army & Navy Store
TAFTVILLE Eldredge Hardware Co., Inc.
THOMASTON Ray's Army & Navy Stores
TORRINGTON Agway, Inc.
WALLINGFORD Ken's Shoe Center
WATERBURY Joel's Shoe Box
WATERBURY Joel's Bootery
WETHERSFIELD Shoe Centre
WILLIMANTIC Mackey's
WINSTED J & C Farm Supply
YANTIC Agway, Inc.

MAINE

AUGUSTA Archie's A & N Store
BELFAST Colburn Shoe Store
CAMDEN Hodgman Footwear
DOVER-FOXCROFT Clay Barn Equipment
DOVER-FOXCROFT Penquis Surge
DOVER-FOXCROFT Surge Dairy Equipment
HALLOWELL H. K. Webster Stores of Maine
HOULTON Coles Shoe Shop
SKOWHEGAN Agway, Inc.
WATERVILLE J. E. McCormick & Son
WESTBROOK Carr's Shoe Store
WINTERPORT Winterport Agway

MASSACHUSETTS

ADAMS R. Bissailon & Sons, Inc.
AMESBURY Ben's Men's Shop
AMHERST Mathews Shoe Store
BOSTON Mickey Finn
BROCKTON Agway, Inc.
CAMBRIDGE Eastern Uniform Co.
CHICOPEE Paul's Shoe Center, Inc.
DORCHESTER Marine Clothing Co.
FALL RIVER Irving's Shoe Store
GREENFIELD Farm Bureau Assn.
GREENFIELD Greenfield Farmers Coop. Exchange
GREENFIELD H. E. Hamilton, Inc.
HARDWICK Hardwick Farmers Co-op Exchange
HAVERHILL Ben Cortell
HINGHAM Hitchcock Shoes, Inc.
HOLYOKE N. Bail Shoe Store
INDIAN ORCHARD Kitcheners Dept. Store
LAWRENCE H. K. Webster
LEE Ben's
LYNN Simons Uniforms
MILFORD Gob Shop
NATICK Natick Outdoor Store
NATICK Wells Shoes
NEEDHAM West's
NEW BEDFORD Agway, Inc.
NEW BEDFORD Leon Poyant
NORTHAMPTON Ted's Boot Shop, Inc.
NORTHBORO C. Roger Wile
PALMER Agway, Inc.
PALMER Pee Dee Shoes
PALMER Potter Shoes
PEABODY Eastern Uniform Co.
PITTSFIELD Agway, Inc.
PITTSFIELD Jim's House of Shoes
PITTSFIELD Mr. Nathan's
SALEM Jerry's, Inc.
SOUTH LANCASTER Lancaster Grain Co.
SOUTH WEYMOUTH Farm Bureau
SPENCER Agway, Inc.
SPRINGFIELD Brooslin Shoes
SPRINGFIELD Potters Shoes, Inc.
THREE RIVERS Three Rivers Outlet
WALTHAM Farm Bureau Assn.
WESTFIELD Agway, Inc.
WESTFIELD Hamilton's Shoes
WESTFIELD C. A. Methe
WESTFIELD Ed Moriarty's Shoe Store
WILLIAMSTON Agway, Inc.
WILLIAMSTON Lo Presto's Shoe Store

NEW HAMPSHIRE

CLAREMONT Agway, Inc.
CONCORD Agway, Inc.
CONCORD Mickey Finn
DERRY Derry Feed
DOVER Agway, Inc.
LISBON The Screaming Eagle Saddle Shop
WALPOLE R. N. Johnson, Inc.

RHODE ISLAND

CENTREDALE Jactal Stores, Inc.
EAST GREENWICH Gob Shop
EAST GREENWICH Silverman Shoe Store
EAST PROVIDENCE Cute's Shoes
EAST PROVIDENCE Riverside Shoe Store
NORTH PROVIDENCE Shoe Horn
PASCOG Berk's
PAWTUCKET Saltzman's Inc.
PROVIDENCE Edward Deutch
PROVIDENCE J & T Gob Shop
SCITUATE North Scituate Hardware
WAKEFIELD Wakefield Branch
WAKEFIELD Wendell's
WEST KINGSTON Agway, Inc.
WESTERLY Agway, Inc.

VERMONT

BARRE The R. L. Clark Store
BETHEL Bethel Mills Grain Elevator
BRADFORD Checkerboard Warehouse
BRATTLEBORO Agway, Inc.
BRATTLEBORO Sam's Dept. Store
BRIDPORT Daniel Huestis Farm Supplies

WHERE TO BUY A BOOT

EAST MONTPELIERCheck-R-Board
Warehouse
ESSEX JUNCTIONEssex Junction Agway
FAIR HAVENSheldon Bros. Agway
GRAND ISLESt. Albans Coop.
HIGHGATE CENTERO. C. McCuin & Son
LYNDONVILLEAgway, Inc.
MIDDLEBURYAl's Dairy Equipment
MILTONMilton Co-op Dairy Corp.
MONTPELIERH. K. Webster Stores of
Vermont
MORRISVILLEUnited Farmers of N.E.
NORTH BENNINGTONWhitman's Feed
Store
RANDOLPHCentral Supplies Co., Inc.
RICHMONDSumner Farr
RUTLANDAgway, Inc.
SAINT ALBANSSt. Albans Coop. Creamery
SAINT JOHNSBURYCaplan's Army Store
SAINT JOHNSBURYHovey's Shops
SAINT JOHNSBURYE. T. & H. K. Ide, Inc.
SOUTH HERORobinson's Hardware
VERGENNESH. P. Hood & Sons
Farm Store
WEST RUTLANDRichard B. Chapman,
I.B.A.
WILLIAMSTOWNWashburn's Hardware
WINOOSKIGladstone Shoe Stores

NEW JERSEY

BELVIDEREYock's Shoe Store
BERLINBurlington Farmers Co. Coop.
BLAIRSTOWNJ. C. Roy & Sons
BRIDGETONBridgeton Agway
BURLINGTONBurlington Co. Farmers Coop.
CLINTONNorth Hunterdon Agway
COLUMBIAKinneys Agway
ELMERSchalick Mills
FLEMINGTONHunterdon Agway
LAKEWOODLakewood Agway
MANVILLEDave's Men's Wear
MORRISTOWNMorristown Store
MOUNT HOLLYMount Holly Store
NEW EGYPTNew Egypt Agway
PRINCETONRosedale Mills
RUTHERFORDO. Berlin
SALEMSalem Agway
SOMERVILLEThe Bootery
VINELANDBernie's A & N

With Our ADVERTISERS



The Sno-Prince line of snowmobiles, manufactured in Princeville, Quebec, is being distributed by the General Sporting Goods Corp. of South Lansing, New York.

Design innovations include "Slide-Rail" suspension, one-piece molded track, and a front suspension incorporating three-leaf springs. There are ten different models in the Sno-Prince line.

"How To Take It Easier While You Make More Milk Money" is the title of a 16-page, color-illustrated book that's offered free to dairymen by Zero Manufacturing Company.

More than 500 different models and sizes of Zero vacuum and non-vacuum bulk milk coolers... ranging from 100 through 6,000-gallon capacities... with stainless steel or plastic-coated exteriors... are classified in this book, which can be of great value to progressive dairymen who plan to expand their dairy operations. To receive a free copy, write: Dept. AA, Zero Manufacturing Co., Washington, Missouri 63090.

American Agriculturist, November, 1971



Minneapolis fifth graders Kevin Bowe and Carmela Pena note the difference in hamburger size between standard ground beef at right and the other fortified by the soybean meat substitutes at center.

MEAT SUBSTITUTES

WITHOUT much fanfare, a new class of foods that complement meat at a fraction of meat cost is nourishing American families at many fast-service restaurants, school lunchrooms, company cafeterias, and at home in some convenience foods.

There are several firms producing protein-rich, fibrous-textured granules made from soybeans. For instance, Cargill, Inc., produces a product called "Texturatein" at Cedar Rapids, Iowa.

School Lunch

Under regulations approved this year by the USDA, textured soy protein specifically fortified with vitamins and minerals, and having moisture content between 60 and 65 percent, can replace up to 30 per-

cent of the weight of uncooked meat in the school menu.

Texturatein can be used in the school kitchen... or by meat-processing companies that supply most of the pre-formed meat patties for school meal programs, and convenience foods for consumers. The same opportunities apply to fast-service restaurants and to cafeteria directors in workplaces and public institutions such as prisons and hospitals.

Although textured soy protein is not yet as practical for small servings, Cargill and other companies are continuing to seek ways that would permit families to take advantage of ways to beef-up their beef with the use of what many call "synthetic meat."

The Song of the Lazy Farmer

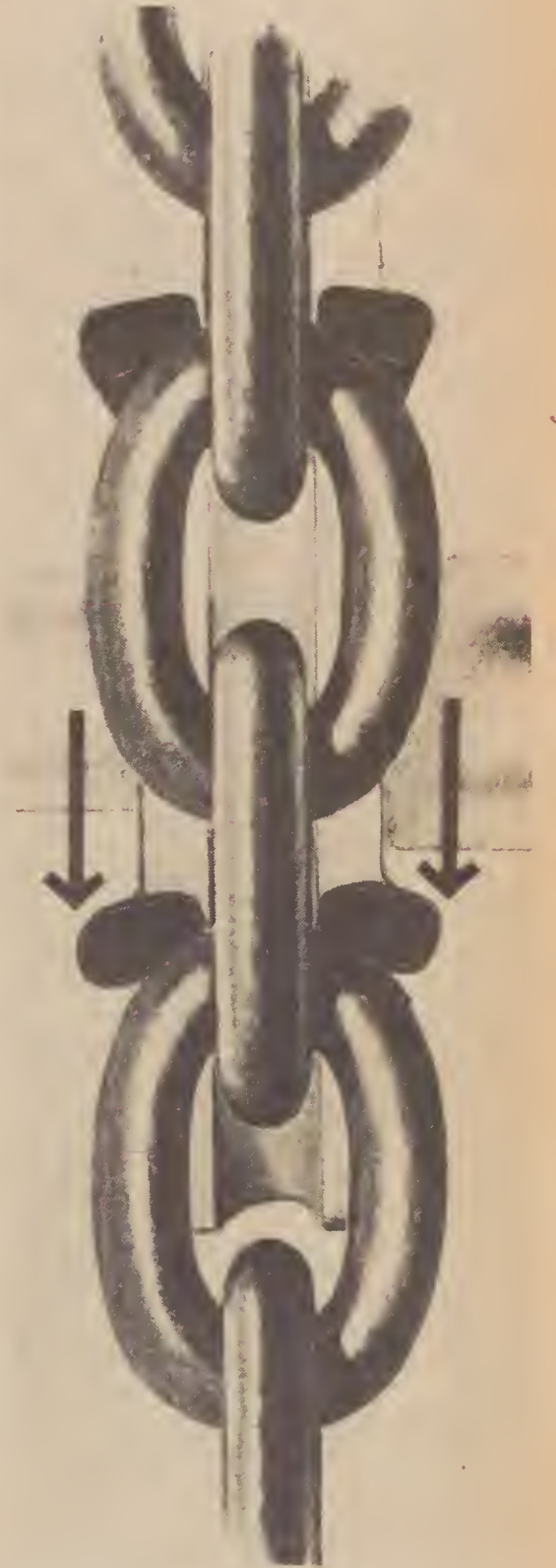
I wish my neighbor'd straighten out and learn what life is all about; the poor old geezer worries me with his mixed-up philosophy. Like lots of others, he has got the cockeyed



notion there is not a thing in life worth man's concern 'cept how much money he can earn. The most successful folks, says he, are those with lots of property; if you are good and kind, but poor, he figures you have failed for sure. He thinks the central point in town is where the local bank is found, while all the churches, schools and such don't really count for very much.

The trouble with ideas like those, as nearly ev'ry farmer knows, is that they leave you feeling sad at least as often as you're glad. Why, poor old neighbor has a fit whenever prices sag a bit; and if the weather's wet or dry, you hear for miles his anguished cry. When things go wrong, he's in a fix 'cause he has never learned to mix a little joy and happiness into his life; I'd even guess the muscles in his face are set so he can't smile upon a bet. Sure, he's made dough hand over fist, but think of all the fun he's missed.

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Gayway Farm Notes

by HAROLD HAWLEY

ANOTHER YEAR, ANOTHER CHAPTER

Almost on an annual basis, change comes to the corn-growing scene. Start wherever you will and no two years have been quite the same.

First it was hybrid seed; soon it was adapted hybrid seed which had maturity to suit our conditions. Corn for grain began to be a reality when it would consistently ripen. Corn acreages were increased and, you guessed it, new cribs, conveyors instead of shovels, various forms of self-unloading wagons, including silage wagons, made their appearance.

Hard on all this came four-row planters, four-row cultivators, then two-row pickers. Fertilizer applications began to zoom, not to mention new ways of applying them. More was plowed down; more was "knifed in," and a little foliar feeding was tried.

Retired

Not far behind all this progress came herbicides and the gradual retirement of the cultivator. Seed began to come graded precisely with various treatments so it could be planted earlier. The planting date had gradually moved up 10 days to two weeks over the years.

What next? A few combines began to do their thing — picking and shelling. Right away somebody needed to provide drying facilities. At first, these were in commercial situations. Next, growers began owning their own.

Adding impetus to the increase in corn acreage was the declining interest in small grains and the small or negative returns therefrom. As the popularity of an all-corn silage program or a heavy corn silage feeding program increased, so did corn acreage.

Leaf Blight

Not necessarily to be confused with progress, leaf blight put in an appearance. Soon farmers were knowledgeable on such heretofore unknowns as Texas male sterile or normal cytoplasm. Seed purchases were modified to gain more resistance to the new threat.

Almost without fanfare, corn culture had been modified over the years. More or less continuous corn had been reluctantly accepted as "good practice." Larger acreages kept calling for bigger equipment all the way from bigger plows and discs through many-row corn planters and king-sized weed spray rigs. Just incidentally, the bigger tractors and plows made possible the use of some "virgin" soils even on some Century Farms. Deep plowing had arrived

and some soil was being turned up that had never before seen the light of day.

Somewhere in this era, plant population began to reach levels undreamed of even 10 years ago. Spacing within the row decreased, and then the big jump to narrow (or at least narrower) rows. It might be fair to say that the answers are still not all in on this one.

To lower costs and hurry up the job, various versions of plow-plant, minimum tillage (really minimum seedbed preparation), and finally no-till planting were tried. The experimentation continues. As the fanfare subsides, each individual grower decides what really is best for his situation in view of what equipment he already has. His acreage, labor and power supply, and his soil types and topography are items to consider.

Somewhere along in the early '60's, some daring soul began to put corn grain into silos. It went into wood, concrete, and sealed-storage structures as shelled grain... either as whole or crushed or ground, or as ground ear corn... and a new era of corn storage and feeding was upon us. Few will deny that the advent of high moisture corn has had a tremendous impact on the corn and livestock industries of the State. HMC led the way to new machines... picker-shellers, picker-grinders, more combines, crusher-grinder equipment at the silos are a few.

Marketing

Keeping pace with these growing and harvesting practices over the years were switches in methods of marketing the grain. Instead of going through commercial channels to be shelled and dried, an increasing amount of ear corn moved from farm to farm to be ground into feed without the expensive intermediate steps.

As HMC became a fact of life, growers and feeders began to work out deals to deliver a crop of corn to the feeder's silo.

Many areas in the Northeast had long been regarded as "silage-only" areas. New early-maturing hybrids, plus the advent of HMC which enabled earlier harvesting, are in the process of changing that. The north country here in New York State is an example. Almost overnight, large corn acreages have appeared and their production finds a ready market on nearby dairy farms.

Corn acreage really took a jump in '71. The change in government program... plus farmer psychology that if blight did hit, it would be nice to have a lot of acres... as well as a continuation of the forces and trends previously mentioned were responsible.

With the prospect of a large crop, there was a move to buy combines.

Lack of drying capacity hung over the picture and was a factor. Silos popped up in many directions, prodded somewhat by an aggressive sales effort by silo salesmen.

In a sense, there was nothing really new but just a real sharp step-up in the tempo of change and the industry will never again be the same. More combines, more silos, more HMC, more corn in new areas, and a feeling that next year will bring another big change.

This change will involve flat storage of HMC treated with acids. In fact, some are freely discussing their dilemma of how to store this year's crop without investing a lot of bucks in a silo which in a year or two may or may not be the most acceptable and economical way to store HMC either for feed at home or for later sales to others. At least one company is carrying out a commercial test-marketing program of "acid-storage" of HMC in twelve states, including Pennsylvania.

MULTIPLE OWNERSHIP

Today it's become pretty common to find situations where two or more individuals (and their wives) enter into various forms of legal arrangements whereby they jointly own, operate, and hopefully pay for, a farm business.

Gone, or at least on the way out (we hope), is the deal where a son was a kind of hired man-junior partner without any legal document to assure him of his rights in the event of his father's death. Too often, Dad's death meant the settling of the estate in such a way that the son either lost part or all of what he had worked for... or was forced to go into debt to buy out the other heirs so he could keep the farm.

Even worse, Dad in some misguided moment may have left Mom the life use of the farm after which the son might expect to inherit it. Such arrangements are for the birds, even where everyone has the best of intentions.

Trend

The trend, hastened and accentuated by the high capital requirements in today's agriculture, is for formal legal arrangements which spell out each person's rights, obligations, and options. Both partnerships and family corporations are used by different farmers. I almost said by different families, but that wouldn't cover the range of situations. These formal legal arrangements make it possible for unrelated persons to pool their capital, labor, and experience in order to finance and run a farm business.

Possibly the biggest roadblock to these arrangements is the difficulty of setting up terms that will be fair and flexible to allow for growth of the business or transfer of the ownership.

The woods are full of lawyers who can set up a partnership or a corporation. They have the forms. What they don't have is the know-how and the knowledge of what specific things should be covered in a farm partnership or corporation.

Farmers themselves are little better equipped to suggest what should be included in their special contract.

And it is special because it is probably not exactly alike for any two situations.

The arguments are endless as to whether a partnership or a corporation is the proper tool. Ask any half-dozen people and get six different answers. Certainly, a corporation offers some advantages in terms of its greater flexibility to accommodate several people's ownership of a business with or without each of them actually farming.

Taxes

Sizable businesses may be tax money ahead if incorporated, but it's not safe to generalize on this one. Your accountant or tax consultant should be able to help with reference to your particular business.

In our case, we got invaluable help from the people at Cornell University. After prospective partners get all the help they can find, they are still like a young couple about to wed. It makes no difference about the ceremony, its style, cost, or pretentiousness. What really assures the success of the marriage, or the business venture, is the willingness of the participants to accept their share of the responsibility, work, and blame... plus their mutual respect for and confidence in each other and their willingness and ability to be a little tolerant, flexible, and forgiving. A good legal document is a must, but so is the ability to work together harmoniously!

YOU WONDERFUL PEOPLE

A couple of issues back, I made mention of the thrill we got when an occasional hummingbird visited us. Dozens of you nice folks sent us letters telling how to attract these beautiful birds. We've already planted some flowers you suggested so our blooms will attract them next year. Also, we will have a feeding tube ready come spring.

So many of you wrote that I didn't get to answer all of you... so let me thank each of you here and now. For the benefit of others who may be interested, several suggested that plantings of delphiniums, red-blooming climbing beans, columbines, phlox, bee balm, and red hot poker will attract hummingbirds.

Opinions varied about feeders, but several reported success with either commercial feeders or home-made ones using a small plastic pill bottle or a test tube. A solution of one part sugar to four parts water, possibly colored red, had worked for many.

THANKS AGAIN

We commented about the need to clip the weeds in our clear-seeded alfalfa... not once, but twice. One good thing about admitting failure is that someone will more likely suggest how he did something with satisfactory results. So it was with this deal.

A respected staff member at the University of Vermont pointed out that had we clipped lower, instead of the five or six inches high that we did, we would have set the weeds back severely. At the same time, we would not have hurt the alfalfa as its regrowth is from the crown.

American Agriculturist, November, 1971



by M. A. Parsons

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mr. Wayne Marsh, Jasper	\$75.40
(refund on suit)	
Mr. Gardon Thayer, Locke	1,842.86
(insurance settlement)	
Mrs. Donald Bruning, Akron	5.00
(refund on order)	
Mr. Dewey H. Rawley, Boinbridge	8.00
(refund on order)	
Mrs. Richard E. Cole, Andes	3.65
(refund on nursery stock)	
Mr. Russell Hale, Johnstown	6.98
(refund on book)	
Mrs. Adolph Krisch, Cooperstown	45.00
(refund on chicks)	
Mr. R. S. Hording, Oakfield	35.00
(refund on ice cutter)	
Mr. Lloyd Boadway, Chateaugay	25.25
(refund on chicks)	
Mr. Andrew Nackelun, Riverhead	19.88
(refund on canopy)	

NEW JERSEY

Mrs. Lee M. Sworts, Sussex	29.00
(refund on order)	

MAINE

Miss Greta Bloke, Harrison	82.50
(refund of deposit)	
Mrs. Rayce R. Overlock, Ellsworth	11.08
(refund on order)	

VERMONT

Miss Elizabeth Curtis, Barre	17.44
(refund on order)	

MASSACHUSETTS

Mrs. Robert W. Glass,	
Buzzards Bay	70.00
(refund on order)	

you are thoroughly acquainted with him and his firm.

2. Always demand a prospectus, required by law, which should be filed with either the Securities and Exchange Commission or the State Attorney General's office.

3. Before investing with persons unknown to you, at least check their background and registration with the closest office of the New York State Attorney General.

4. If large amounts of money are involved in out-of-state or out-of-country enterprises, consult a financial advisor before investing.

DELIVERY DELAYED

"Over five months ago I sent a \$70.00 order to Alaska Sleeping Bag Company in Beaverton, Oregon. I received notice from them that they could not fill the order until two months in the future, so I wrote and asked them to cancel the order and refund my money. Later, I received a card, requesting time to check the status of my order. Since then my letters to them have apparently been ignored.

"If you can give me any help in this matter, I would very much appreciate it."

After our second letter to the company about the above complaint, they wrote us that a \$70.00 refund check had been mailed to our subscriber, and they apologized for the inconvenience caused him.

In recent months, we have had several complaints against this company, most of which, so far as we know, have been settled.

The company, which sells sports-wear and sports goods, has been in business in Beaverton for over forty years and has had a good reputation for quality of products and service. They blame the current problems on the change-over from manual to computer handling of orders and upon failure of some of their regular suppliers to be able to make satisfactory deliveries.

CAN YOU HELP?

Mrs. Charles Wood, West Shokan, New York, is looking for a complete copy of a poem that starts: " 'Twas Christmas Eve in a home of Joy, at the door there came a knocking. Without stood a barefoot shivering boy, 'Please lady, lend me a stocking.' "

* * *

Mr. Calvin Springer, Box 141, Marathon, New York, would like prints of comic strips from the 1920's and 30's.

* * *

Mrs. Irene Horton, Box 210, Lodi, New York, is looking for a copy of "One Foot in Heaven," by Hartzell Spence.

* * *

DUNNING STOPPED

"I ordered a Popular Mechanics Do-It-Yourself Encyclopedia over a year ago, on which I made monthly payments. According to my money order receipts, I cleaned the bill all up, but I still get dunning letters. Can you write them and have them stop sending letters?"

After our second letter to the company, they wrote us that an adjustment had been made on our subscriber's account and the account is now closed. They regret the inconvenience caused him.

Here again, it was important to send a copy of their bill to the company, so that they could identify the account. Since most accounts are handled by computers these days, numbers often mean more than names!

WORTHLESS

This summer, Attorney General Lefkowitz warned residents of Upstate New York counties against being victimized by traveling confidence men seeking to sell worthless and unregistered securities.

He said he had received numerous complaints from New York residents, who had invested more than \$400,000 in various ventures promoted by persons little known to them. In each case, investments were made on the basis of substantial promises of large returns on speculative investments, including the sale of securities in land promotions outside of New York State and in foreign countries.

The Attorney General said investors should follow these guidelines: 1. Do not invest with anyone unless
American Agriculturist, November, 1971

EVERY 3 SECONDS

Someone is injured in an accident. 1970 accident facts show that the annual toll is 113,000 killed, 10,800,000 seriously injured. If you haven't had an accident — be thankful.

TRAVEL ACCIDENTS
55,200 KILLED

Motor vehicle accidents were the number one cause of deaths with 3,733,000 persons injured.

HOME ACCIDENTS
27,000 KILLED

Falls, a major killer caused 40% of all accidental deaths in the home.

ONE OUT OF EVERY SEVEN

People were hospitalized either for illness or accidents. The average cost per day was \$84.67. The average cost per hospital stay was \$702. And, the cost continues to rise.

* * * *

A FRIEND'S NAME MAY BE IN THIS LIST.

Thomas L. Settle, Berne, N.Y.	\$ 906.72	Lena B. Czadzeck, Victor, N.Y.	\$1188.24
Auto accident—head injuries		Slipped on ice—broke back	
Josephine Gelser, Swain, N.Y.	186.43	Royce D. Hill, Gilbertsville, N.Y.	999.04
Hit by sheep—broke leg		Fell from silo—inj. knee	
James Brigham, Whitney Point, N.Y.	793.37	Joseph McGraw, North Lawrence, N.Y.	1386.83
Dozer tipped over—injured chest		Hit by cow—broke ankle	
Duane Beaver, Randolph, N.Y.	949.76	Raymond F. Dendsha, Balmat, N.Y.	165.71
Playing baseball—broke ankle		Caught in planer—cut hand	
Howard A. Leach, Sr., Martville, N.Y.	223.00	William Mulyca, Schenectady, N.Y.	218.81
Thrown by cow—inj. back		Crushed between poles—inj. foot	
Cosmo F. Trippe, Fredonia, N.Y.	1325.00	Michael Kodra, Jr., Dorloo, N.Y.	122.86
Fell from roof—broke collarbone		Stepped on by cow—broke foot	
Riel Joseph Bulriss, Mooers, N.Y.	2036.10	Katherine Peck, North Cohocton, N.Y.	371.41
Kicked by cow—internal injury		Caught in car door—inj. wrist	
George Keturi, Van Etten, N.Y.	510.43	Richard Machuga, Bradford, N.Y.	310.70
Loading calf—injured wrist		Gored by cow—inj. hand	
Phillip Ackerman, Bloomville, N.Y.	339.71	Thomas Doroski, Mattituck, N.Y.	734.80
Fell in mow—inj. back		Go-kart accident—inj. head, leg	
Lawrence Minekime, North Collins, N.Y.	154.28	Bruce Glezen, Richford, N.Y.	1760.67
Horse fell—injured thigh		Kicked by horse—broke shoulder	
Thomas J. Wells, Willsboro, N.Y.	279.64	Mary Walker, Cortland, N.Y.	1258.57
Stepped off tractor—broke ankle		Fell on kitchen floor—fract. ankle	
Clayton A. Manson, Constable, N.Y.	497.42	Horton R. Clark, Lyons, N.Y.	317.94
Hit by cow's tail—inj. eye		Ladder broke—broke arm	

You need broad coverage with high benefits to meet today's high cost of being hurt or sick - a combination of North American policies provides this protection.

Edgar G. Moore, Johnstown, N.Y.	111.42	Grant Bradshaw, Walworth, N.Y.	358.68
Motorcycle acc.—inj. knee		Motorcycle acc.—broke hand	
Douglas Kingsley, Pavilion, N.Y.	674.75	Leona Larwood, Palmyra, N.Y.	2135.00
Hit by golf club—head injury		Auto accident—inj. hip	
Betty J. Loucks, Dolgeville, N.Y.	282.14	Teresa Neamon, Arcade, N.Y.	667.00
Automobile acc.—chest injury		Fell on ice—broke wrist	
Robert E. Young, W. Winfield, N.Y.	171.00	Harvey L. Colegrove, Wyalusing, Pa.	286.42
Struck by cow—broke tooth		Tractor acc.—injured foot	
Llewellyn Zehr, Woodville, N.Y.	1363.59	Arlowin B. Allen, Union City, Pa.	192.27
Automobile acc.—multi. injuries		Stepped on by cow—inj. ankle	
Howard P. Lyndaker, Beaver Falls, N.Y.	1470.00	Michael Glemboski, Springville, Pa.	1602.00
Slipped off log skidder—inj. back		Truck accident—broke rib, back	
Kenneth H. Hill, Turin, N.Y.	1698.55	Peter Ensminger, Mainesburg, Pa.	695.43
Fell from ladder—broke hip		Bike hit by car—multi. cuts, bruises	
Kimberly Orton, Nunda, N.Y.	286.02	Carl R. Daniels, Pemberton, N.J.	676.10
Fell skiing—broke leg		Motorcycle acc.—inj. knee	
Albert G. Esche, N. Brookfield, N.Y.	375.00	Robert Conk, Cream Ridge, N.J.	759.78
Automobile acc.—broke ribs		Ladder collapsed—broke wrist	
Elizabeth Miller, North Chiles, N.Y.	314.00	Charles J. Krasnecky, Hardwick, Mass.	481.10
Stepped on wet spot—broke leg		Fell from conveyor—inj. neck, hip	
Emerson Moyer, Canajoharie, N.Y.	356.28	Paul E. Nelson, Barnet, Vt.	712.39
Bumped shift lever—inj. hand		Getting on tractor—inj. knee	
Evelyn Sims, Gasport, N.Y.	315.20	Robert Gove, Moretown, Vt.	630.00
Auto accident—multi. injuries		Auto accident—broke arm, leg	
Victoria Kopack, New York Mills, N.Y.	331.70		
Fell shoveling snow—inj. back			

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

NORTH AMERICAN COMPANY

FOR LIFE AND HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

ITHACA, NEW YORK

ALBANY COUNTY

Albany Dodge, Inc.
770 Central Ave.
Albany, N.Y.
Newell Bros., Inc.
169-171 Ontario St.
Cohoes, N.Y.

ALLEGANY COUNTY

Pfuntner Sales & Service, Inc.
120 Railroad Ave.
Wellsville, N.Y.

BROOME COUNTY

Miller Motor Car Corp.
4455 Vestal Parkway E.
Binghamton, N.Y.
Deposit Motor Sales, Inc.
62 Second St.
Deposit, N.Y.

CATTARAUGUS COUNTY

Knight's Service Garage
8 Main St.
Franklinville, N.Y.
A. L. Sibley Motors, Inc.
520 Rock City St.
Little Valley, N.Y.
Paul Brown Motors, Inc.
1145 E. State St.
Olean, N.Y.
Randolph Motors, Inc.
91 Jamestown St.
Randolph, N.Y.

CAYUGA COUNTY

Ryerson Dodge, Inc.
Grand Ave., R.D. #6
Auburn, N.Y.
James E. Ryerson, Inc.
55 Main St.
Moravia, N.Y.

CHAUTAUQUA COUNTY

Farrell Chrysler-Plymouth, Inc.
258 W. Main St.
Fredonia, N.Y.
Cusimano Bros. Garage, Inc.
616 Buffalo St.
Jamestown, N.Y.
Damon Motors, Inc.
120 Central Ave.
Silver Creek, N.Y.
Westfield Dodge City, Inc.
East Main St.
Westfield, N.Y.

CHEMUNG COUNTY

Carroll Motor Co., Inc.
251-253 Baldwin St.
Elmira, N.Y.

CHENANGO COUNTY

Nearing Dodge, Inc.
Hale Street Ext.
Norwich, N.Y.

CLINTON COUNTY

Ausable Motor Sales, Inc.
Main St.
Ausable Forks, N.Y.
E. S. Mason, Inc.
Upper Cornelia St.
Plattsburgh, N.Y.

COLUMBIA COUNTY

Chatham Motor Company, Inc.
17 Austerlitz St.
Chatham, N.Y.
C. R. Dodge, Inc.
98 Green St.
Hudson, N.Y.

CORTLAND COUNTY

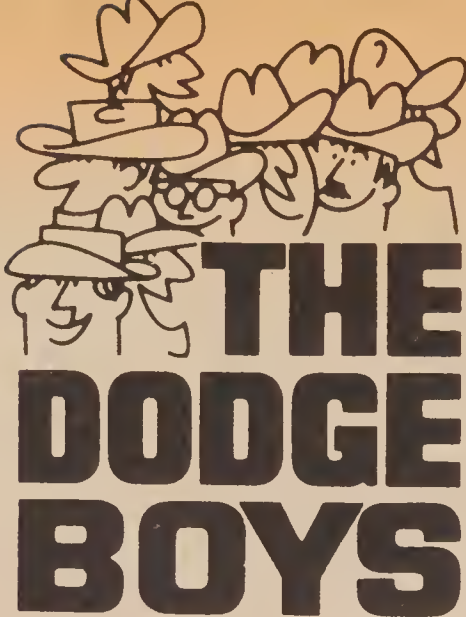
Planck Motors, Inc.
192 Homer Ave., North
Cortland, N.Y.

DELAWARE COUNTY

Delhi Motor Co., Inc.
4 Meredith St.
Delhi, N.Y.
Craft Motor Co., Inc.
Main St.
Margaretville, N.Y.
K. Rappleyea Chrysler-Plymouth
Beaver & Main St.
Stamford, N.Y.
Buteau's Dodge Sales
90 Delaware Ave.
Walton, N.Y.

ERIE COUNTY

Crest Dodge, Inc.
1510 Orchard Park Rd.
Buffalo, N.Y.
James F. Shaw Co.
Olean Rd.
Chaffee, N.Y.
Mid-City Dodge, Inc.
2185 Walden Ave.
Cheektowaga, N.Y.
John K. Kruse Motors, Inc.
10085 Main St.
Clarence, N.Y.
Fairway Dodge Sales, Inc.
395 Buffalo St.
Hamburg, N.Y.
Kenton Dodge, Inc.
3445 Delaware Ave.
Kenmore, N.Y.
DeLacy Motors, Inc.
5229 Broadway
Lancaster, N.Y.
Bob Johnson Motors
195 W. Main St.
Springville, N.Y.



Transitowne Dodge, Inc.
7408 Transit Rd.
Williamsville, N.Y.

ESSEX COUNTY

Crown Point International Ltd.
South Main St.
Crown Point, N.Y.

FRANKLIN COUNTY

Lakeside Garage
111 River St.
Saranac Lake, N.Y.

FULTON COUNTY

H. & P Motors, Inc.
67 South Main St.
Gloversville, N.Y.
Howell & Pierson, Inc.
224-226 W. Main St.
Johnstown, N.Y.

GENESEE COUNTY

Greco Sales & Service, Inc.
Route 20
Darien Center, N.Y.
Zigrossi Motors
109-111 Main St.
Oakfield, N.Y.
LeRoy Chrysler-Plymouth, Inc.
7133 West Main St.
LeRoy, N.Y.

HAMILTON COUNTY

Day's Garage
Rt. 30, North
Long Lake, N.Y.

HERKIMER COUNTY

Holt Bros., Inc.
94-100 W. Main St.
Mohawk, N.Y.

JEFFERSON COUNTY

Fulkerson Motors
Route #11
Adams, N.Y.
Carthage Dodge, Inc.
320 N. School St.
Carthage, N.Y.
Eveleigh Motor Sales, Inc.
518 William St.
Dexter, N.Y.
Bickelhaupt's Garage
211-213 Main St.
Theresa, N.Y.
Lathan's, Inc.
Outer Washington St. Rd.
Watertown, N.Y.

LEWIS COUNTY

Donaldson Dodge
Croghan, N.Y.

LIVINGSTON COUNTY

Frank Piraino, Inc.
110 W. Main St.
Avon, N.Y.
Lent Dodge, Inc.
8 Ossian St.
Dansville, N.Y.
Schiano Chrysler-Plymouth, Inc.
84 Avon Road
Geneseo, N.Y.

MADISON COUNTY

S. J. Reynolds & Son
Main St.
Madison, N.Y.
A. F. Ryan & Sons, Inc.
129 Cedar St.
Oneida, N.Y.

MONROE COUNTY

Barry Dodge
4579 S. Main St.
Brockport, N.Y.
McEvoy Dodge West-Ridge, Inc.
4477 Ridge Road, West
Greece, N.Y.
Culver Dodge, Inc.
1733 Ridge Road, East
Rochester, N.Y.
McEvoy Dodge, Inc.
2400 W. Henrietta Rd.
Rochester, N.Y.
Weller Motors, Inc.
Stutson St. & Thomas Ave.
Rochester, N.Y.
Gray-Raycheff, Inc.
69 Rochester St.
Scottsville, N.Y.
Ross Motors Webster Corp.
943 Ridge Road
Webster, N.Y.

Have the Only

MONTGOMERY COUNTY

Capece Motor Sales, Inc.
Main & Center Sts.
St. Johnsville, N.Y.

NIAGARA COUNTY

Schmid Motors, Inc.
5869 South Transit Rd.
Lockport, N.Y.
Falls Dodge, Inc.
2380 Military Rd.
Niagara Falls, N.Y.

ONEIDA COUNTY

Zeigler's Motor Sales, Inc.
202 Ford Ave.
Boonville, N.Y.
Clinton Chrysler Plymouth, Inc.
12 Franklin Ave.
Clinton, N.Y.
A. J. Ryan Motors, Inc.
601 W. Dominick St.
Rome, N.Y.
Dodge City of Utica, Inc.
Truck Route 5A
Yorkville, N.Y.

ONONDAGA COUNTY

Cicero Dodge, Inc.
Rt. 11 & Pine Grove Rd.
Cicero, N.Y.
Val's Motors, Inc.
756 State Fair Blvd.
Lakeland (Solvay), N.Y.
A. F. Ryan & Sons, Inc.
102-106 E. Seneca St.
Manlius, N.Y.
Sam Dell's Dodge Corp.
1011 W. Genesee St.
Syracuse, N.Y.

ORLEANS COUNTY

Cardone Dodge, Inc.
10825 Maple Ridge Rd.
Medina, N.Y.

OSWEGO COUNTY

Longley Bros.
East River Rd., South
Fulton, N.Y.
Earl Marks Dodge Corp.
206 W. Seneca St.
Oswego, N.Y.
Dick Goslin, Inc.
Route 11, North
Pulaski, N.Y.

OTSEGO COUNTY

Mohawk Chrysler Plymouth, Inc.
U.S. 28, Chestnut St., South
Cooperstown, N.Y.
Burr's Dodge, Inc.
Chestnut St.
Oneonta, N.Y.
Frank Patterson & Sons
Main St.
Richfield Springs, N.Y.

RENSSELAER COUNTY

Ken Goewey Dodge, Inc.
360 Fifth Ave.
Troy, N.Y.

ST. LAWRENCE COUNTY

Brown's Dodge, Inc.
Russell Road
Canton, N.Y.
Gouverneur Motor Sales, Inc.
385-387 E. Main St.
Gouverneur, N.Y.
T. A. Rickard, Inc.
E. Orvis St.
Massena, N.Y.
Harold L. McAdam
R.D. Heuvelton Rd.
Odensburg, N.Y.
Blevins Motors
Route #4
Potsdam, N.Y.
Oswegatchie Auto Sales, Inc.
Route #3
Oswegatchie, N.Y.

SARATOGA COUNTY

Main Motors, Inc.
98 Main St.
Corinth, N.Y.
Ed Shepherd Dodge, Inc.
80-84 Church St.
Saratoga Springs, N.Y.

SCHENECTADY COUNTY

Wedekind Motors, Inc.
1595 State St.
Schenectady, N.Y.
Scotia Motors, Inc.
110 Mohawk Ave.
Scotia, N.Y.

SCHOHARIE COUNTY

Head Sales & Service
Route 145
Lawyersville, N.Y.

SCHUYLER COUNTY

Learn Motor Company, Inc.
502 N. Franklin St.
Watkins Glen, N.Y.

SENECA COUNTY

Seneca Dodge, Inc.
364 W. Main St.
Waterloo, N.Y.

STEBEN COUNTY

Warren Stiker
E. Front St.
Addison, N.Y.
Maple City Dodge, Inc.
76 Seneca St.
Hornell, N.Y.

TIOGA COUNTY

Tioga Dodge, Inc.
Fifth Ave.
Owego, N.Y.

TOMPKINS COUNTY

William T. Pritchard, Inc.
304-306 S. Cayuga St.
Ithaca, N.Y.

WARREN COUNTY

Ford Garage Co., Inc.
109 Warren St.
Glens Falls, N.Y.

WASHINGTON COUNTY

Griffin Brothers, Inc.
R.D. (Route 22)
Salem, N.Y.

WAYNE COUNTY

Tiberio Motors
W. Church St.
Savannah, N.Y.
Macedon Motors, Inc.
90 Main St.
Macedon, N.Y.
Wayne Motor Sales
335 W. Union St.
Newark, N.Y.

WYOMING COUNTY

Fred's Dodge
Pine Tavern Rd.
Perry, N.Y.

YATES COUNTY

Keuka Dodge, Inc.
R.D. 5, Route 14A
Penn Yan, N.Y.

PENNSYLVANIA**BRADFORD COUNTY**

Penn-York Valley Motors Co., Inc.
310 N. Keystone Ave.
Sayre, Pa.
Calkins Motor Sales, Inc.
510 Elmira St.
Troy, Pa.
Dave Snell Chrysler-Plymouth, Inc.
Route #6
Wysox, Pa.

MCKEAN COUNTY

Harold C. Bauschard
170 Seaward Ave.
Bradford, Pa.
Eldred Garage
Main St.
Eldred, Pa.
Battista Motor Sales
395 N. Fraley St.
Kane, Pa.
Smethport Garage Co., Inc.
Main St.
Smethport, Pa.

TIOGA COUNTY

Ed Brueilly Dodge
R.D. #1
Mansfield, Pa.

WARREN COUNTY

Quack's Motors, Inc.
2690 Pennsylvania Ave.
Warren, Pa.

New Pickup for 1972



John and Betty Beard with the all-new Dodge pickup for 1972. The Beards have a 560 acre dairy operation near Cortland, New York. This farm has been in the Beard family for over 100 years. They currently have 140 head of dairy stock and are milking about 80 cows.

We asked John Beard why he liked Dodge. He replied, "I've had Dodge pickups on my farm since 1968. The main reason I've liked Dodge over the years is its ruggedness. Dodge is a tough truck and on a farm like mine, this is extremely important."

This is Mr. Beard's reason for liking Dodge. There are many other reasons why *you* should prefer Dodge — the all-new pickup for 1972.

Great New Ride

The 1972 Dodge has a completely new, independent front suspension. This, combined with a wider front and rear track, plus a longer wheelbase (131 inches), gives

you a great new pickup with a great new ride. Dodge retains its performance as a truck and at the same time provides some of the slickness of a car.

Roomiest Cab Around

The Dodge designers gave this all-new pickup a roomier, more comfortable cab. Doors are two inches wider and open nine inches farther for easy entry and exit; shoulder room has been increased by over four inches; the taller cab gives you a full 13 inches of seat height for greater leg support.

Tough Construction

As Mr. Beard mentioned, Dodge trucks are tough. Even though this is an all-new pickup, you still get all the toughness you'd expect in a Dodge. For example: the cargo box has thick, double walls and ribbed inner panels for greater strength.

Dodge 
AUTHORIZED DEALERS



Dodge. Depend on it.



Dodge

Dodge Trucks

Profitable corn yields start with NK Hybrids

Bred for Northeast growers to withstand stress

When corn growing shifted into high gear, Northrup King was the company ready with the high performance hybrids. It had the varieties that could withstand the new stresses of high plant populations, narrow rows, chemical and weed control programs and new cultivation techniques.

Even the ears were something new! Slim, tough cobs were tailor-made to go through cylinders without breaking. Test weights were remarkably high and feeding value was excellent.

PX446

95-day Superstar
No. 1 in Cornell Trials

Cornell's state-wide corn variety evaluation program rated PX446 at 128, highest of all hybrids tested. Out of a possible 10 points, PX446 scored 9.9 for standability! Here's a real Superstar performer that jumps out of the ground fast, thrives on intensive management and shrugs off stress for big yields. For silage or grain, it's a beautiful plant.

PX446 was the choice of Vermont winner, Zenophon Wheeler, in the 1970 National Corn Growers Assn. Yield Contest. His yield — 135.85 bu./A. Don Porter, Baldwinsville, N.Y., averaged 133 bu./A. with this Superstar.

Plant all you can get!

PX 525 105-day Special Cross

This medium-season hybrid topped all other medium-season corns in 1970 Cornell trials. It stands extremely well and had a 9.6 rating. The upright leaves, on a medium-tall plant, trap extra light. Ears produced a medium-hard starch kernel.

PX 50A New 110-day Single Cross

In 1969, PX 50 produced the highest yield in the nation ... 238.42 bu./A. ... and won the National Corn Yield Contest. In 1970 it won four state championships, including New Jersey and New Hampshire.

Nevertheless, NK breeders made a genetic change to create PX 50A...even better than PX 50. It matures earlier than famous PX 610 and has tremendous standability.

PX 610 Full Season Special Cross Yield Champion from Coast-to-Coast

Robert Dayhoff, Maryland's N.C.G.A. Yield Champion produced 187.87 bu./A. with this Superstar. The outstanding results, however, were in the profit column — "Our net profit was \$150.00 per acre," he reported. PX 610 thrives on intensive management and has produced 239 bushels per acre at 36,000 population. "PX 610 has always been a dependable hybrid," said Dayhoff.

Distributed by:
STANFORD SEED CO. — Buffalo, New York
and
CLOWER SEED CO. — Mount Airy, Maryland

C-1-31



NORTHROP KING SEEDS
National Headquarters, Minneapolis, Minn. 55413



DECEMBER 1971

American Agriculturist
and the
RURAL NEW YORKER





International® 454



International 574

Most of these features aren't available on any competitive tractor at any price!

- All-new "Lightning Flash" shift-on-the-go. 8F-4R synchromesh design.
- Built-in shuttle-shift for fast forward and reverse.
- New clean-design step-through operator's compartment. No levers between your knees.
- New trim response draft-control for smoother hitch action.
- Torsion bar draft sensing for more precise control.
- Big rear tank keeps fuel cooler for maximum efficiency, and weight is where you want it. More fuel capacity.
- Power-shift independent PTO with dual PTO shafts—540 and 1000 rpm.
- 11-inch diameter Dyna-Life® clutch with long-lasting Cera-metallic facings.
- Hydrostatic power steering.
- Hydraulic disc brakes.
- Full instrumentation, with accurate gauge readings.
- More hydraulic capacity. Three pumps for longer life, less maintenance.
- Swept back front axle for shorter turning radius.
- Pressurized lubricated transmission for longer life.
- Design for easy maintenance.

Why not get everything you ought to get—and more—in 40- and 52-pto hp* tractors? You get all this, because these are the most advanced tractors in the 40 and 50 hp markets. And you reap the benefits of all this modern design to get more work done faster than ever before. The proof of the performance is in the field. You owe it to yourself to try before you buy. IH dealers have these models available now.

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Food For The Spirit



by Robert L. Clingan

SILENCE OF GOD IN COMMUNION

Dr. Hardy, pastor of a Presbyterian church in Sydney, Australia, has had several things to say about the silence of God... one is that silence is the means by which communion takes place.

Psychologists speak a great deal about "non-verbal" communication.

A child in his mother's arms learns about supportive maternal love before he can understand a word his mother says. A child growing up can sense a parent's disapproval apart from what the parent says or fails to say. A couple who have lived together a long time sometimes reach a point where they can sit in silence and know what the other is thinking.

The Bible tells of Elijah fleeing from the wrath of Jezebel (I Kings). Finally he stands in the mouth of a cave on Mt. Horeb... "And behold, the Lord passed by, and a great and strong wind rent the mountains, and broke in pieces the rocks before the Lord, but the Lord was not in the wind; and after the wind an earthquake, but the Lord was not in the earthquake; and after the earth-

quake a fire, but the Lord was not in the fire; and after the fire a still small voice."

Apparently God had finally spoken. He had spoken in a "still small voice." The word "still" suggests a silence, a word without sound, that could be identified as the voice of God.

This hearing in silence is known by every true worshiper of the living God. The late Walter Rauschenbusch knew this experience of communing with God in silence. He put his experience into the form of a poem:

"In the castle of my soul, is a little postern gate

Whereat, when I enter, I am in the presence of God.

In a moment, in the turning of a thought

I am where God is. This is a fact."

All of us need to develop more fully the ability to listen in silence to the silent voice of God. This is communion.

Dates to Remember

Dec. 3-4 - Fourth Annual Pennsylvania Wine Conference, Keller Conference Center, Penn State, University Park, Pa.

Dec. 4 - Annual NY Hereford Registered Heifer Calf Sale, Canandaigua, N.Y.

Dec. 5-7 - Cornell Seed Conference, Ithaca, N.Y.

Dec. 5-9 - 53rd Annual Meeting, American Farm Bureau Federation, Conrad Hilton Hotel, Chicago, Ill.

Dec. 6-10 - American Society of Agricultural Engineers Winter Meeting, Sherman House, Chicago, Ill.

Dec. 9-10 - Annual Meeting NYS Council of Farmer Cooperatives, Syracuse Hotel, Syracuse, N.Y.

Dec. 15-17 - Annual Convention National Farmers Organization, Kansas City, Mo.

Dec. 17 - Feeder Pig Sale, Caledonia, N.Y.

Jan. 5-7 - Northeast Weed Science Society Meeting, New York City.

Jan. 10-14 - Pennsylvania Farm Show, Harrisburg, Pa.

Jan. 12-13 - Empire State Soil Fertility Association Annual Meeting, Syracuse, N.Y.

Jan. 16-19 - Regional Horticultural Meeting and Trade Show, Hotel Roanoke, Roanoke, Va.

Jan. 17-21 - Annual Beef Cattlemen's Short Course, Cornell University, Ithaca, N.Y.

Jan. 18-20 - Annual Veterinarians Conference, Cornell University, Ithaca, N.Y.

Jan. 18-20 - NYS Horticultural Society Meeting, Rochester, N.Y.

Jan. 19-22 - NY Holstein-Friesian Association Annual Meeting, Lake Placid, N.Y.

Jan. 22-29 - New Jersey Farmers Week, Rutgers College of Agriculture and Environmental Science, New Brunswick, N.J.

Jan. 25-27 - NYS Horticultural Society Meeting, Kingston, N.Y.

Jan. 26-28 - Annual Lime and Fertilizer Conference, Penn State, University Park, Pa.

Jan. 31-Feb. 2 - Cornell Agricultural Waste Management Conference, Syracuse, N.Y.

FIRST SNOW

November came in gloomy grey
To nip with night the shrinking day.
The earth eclipsed the slanting sun,
And vegetation's work was done.
The grasses shivered tense and chill,
While naked trees moaned on the hill.
Dark clouds bent down in comfort's guise;

The whirl of shuttles filled the skies
As Nature wove from crystal rain
A wooly felt for hill and plain—
Wind-shaped to fit each varied form.
So everything, was bedded warm
Until the sun's ascending glow
Should fold aside this shawl of snow.

Monroe Conklin

American Agriculturist, December, 1971

On top.

That's where you are with Ski-Doo '72. It's a fact. We put you on top of the snow, not in it.

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And the muscle machines, track and trail busting T'NT.*

These are just some of the series that have made Ski-Doo the world leader in snowmobiling.

And, Ski-Doo '72 is what snowmobiling is all about.

When you look at all the facts
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has more going for you.



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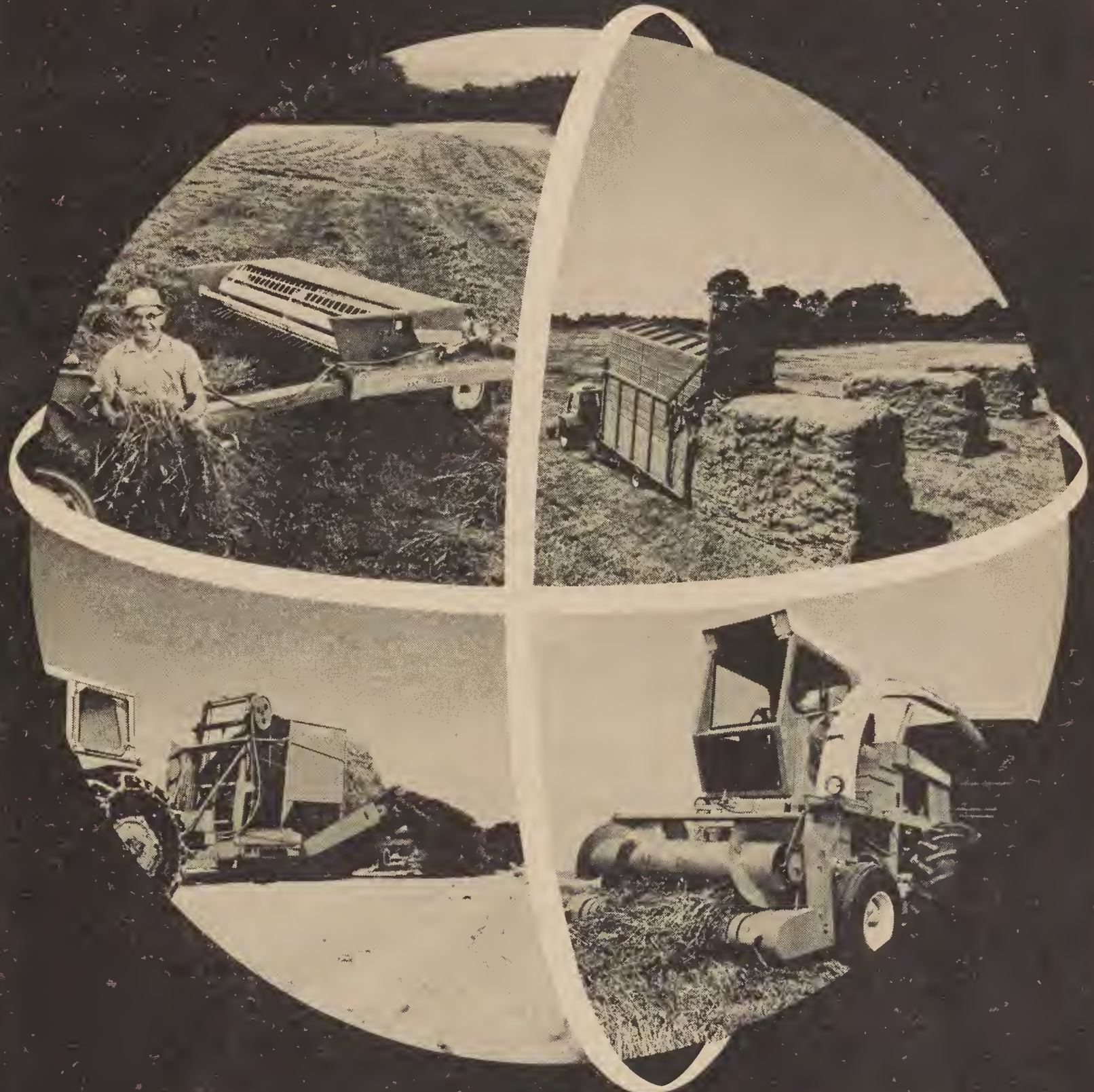
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OUR COVER

Mary Louise Albino, along with daughters Ann Louise and Christine, brings a Christmas tree out of the plantation at the Carlton Christmas Tree Farm near Lafayette, New York. Photo: Joseph Albino.



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Hesston Has It NOW

two different ways...for early buyers

1. CASH BONUS IF YOU PURCHASE A HESSTON WINDROWER NOW!

If you buy a windrower during the fall or winter months instead of waiting until spring, Hesston will send you a check direct from the factory! It's sort of an early-buyer bonus for the interest money we save on a big equipment inventory. The earlier you buy, the more you save. The table shows the amount for the model and the month. Or, if you prefer to finance your windrower, Hesston will pay the interest* until May 1, 1972.

If you buy a model...	620	520	500	420	300	320	PT-12	PT-10	PT-7
Before Dec. 31, 1971	\$350	\$300	\$275	\$250	\$225	\$200	\$150	\$110	\$95
Jan. 1-31, 1972	\$275	\$235	\$215	\$200	\$175	\$150	\$120	\$ 90	\$75
Feb. 1-29, 1972	\$200	\$175	\$160	\$150	\$125	\$100	\$ 90	\$ 65	\$60

Bonus subject to model, option and other equipment availability.

2. INTEREST PAID UNTIL MAY 1, 1972 ON HESSTON STAKHANDS, WINDROWERS, AND FORAGE HARVESTERS!

We have a deal, too, if you prefer to finance other Hesston Hay equipment. If you buy and accept delivery, subject to availability, between December 1 and February 29, 1972, Hesston will pay the interest* until May 1, 1972, regardless of whether you finance it through Hesston or a local source. This is the easy way to move into Hesston's world of one-man hay with the revolutionary StakHand®, now in three different sizes, that puts up compressed Hesston HayStaks...and to get the matching StakMover that moves them wherever and whenever you like...or to add the StakFeeder™ attachment. You can get the big-capacity Hesston Forage Harvesters—either the self-propelled or pull-type models—the same way. Of course the interest waiver is available with windrowers, too, effective October 1 and you can select either the Cash Bonus or Interest Paid Plan, but not both! The earlier you buy the more likely your Hesston Dealer is to add something extra to the deal. So see him today, or write!

*Based upon prevailing rates.

HESSTON®

HESSTON CORPORATION 316 King Street, Hesston, Kansas 67062

Please tell me where I can get more information on "The Best Deal in the World". I am interested in a Hesston Windrower _____, StakHand System _____, Forage Harvester _____.

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I harvest about _____ tons of hay a year.



With the Hesston StakHand System one man can handle the entire operation from field to feeding without leaving his tractor seat!

EDITORIALS

by GORDON CONKLIN



MERRY CHRISTMAS

A little boy once roamed the chilly December hills of a land far away... looking wide-eyed at the bleating flocks of sheep, and at the traveling caravans. He grew up as a country boy out in the boondocks of Nazareth, but even as a youth he sensed that his life was to have an impact on the whole world.

And so it has... an influence helping to shape the course of history for nearly 2000 years. The tapestries of life woven by mankind for generations have been gray with despair and red with hatred... but interwoven through them are the shining threads springing from hearts touched by the man from Galilee. Even the cynical playwrights and audiences of Broadway... normally preoccupied with the deviates of society... show a strange fascination for this man they call Superstar.

Part of what we Americans do to celebrate Christmas has more similarity to the ancient pagan revelries of Saturnalia than it has with the birthday of Christ. But those shining threads are still woven into the tapestry of our time... lending hope and happiness to the holiday season of even a year as troubled as 1971.

May your Christmas be a joyous one, and may you enter 1972 with a hopeful heart!

CONGRATULATIONS

I note that the Farm Bureau's Northeastern Region will go into 1972 having gone well over the membership quota (64,637) assigned by the American Farm Bureau Federation. It was the first region to reach quota in the membership drive in the fall of 1971, and it was the first time ever that the Northeast achieved quota.

Farmers need strong organizations that can represent them at state and national levels. Congratulations to Farm Bureau lay and professional leadership alike for this evidence of strength on behalf of farm families!

EXTENSION CHANGES

For five years in my checkered career, I was a county agricultural agent in Cayuga County, New York. Partly as a result of this experience, I have always been very much interested in county agents and their programs.

Three of this year's events have stirred widespread comment about extension work:

— In 1971, Oneida County in Wisconsin became the first county in the state to close its county extension office... terminating an organization dating back to 1912. Ironically, the county was the first in Wisconsin to open an agricultural extension office. Under existing administrative procedures, this means that Oneida County will be without a 4-H program or an extension homemaking program... and there will be no agricultural extension work there by either county agents or college specialists.

— New York State's Cooperative Extension Service issued a publication entitled "Perspective for the '70's." Its list of program priorities has three major categories:

- Quality of Community and Family Life
- Quality of Environment
- Disadvantaged Sectors of Society

Where does agriculture fit? Some would argue that farmers legitimately come under the category of "Disadvantaged Sectors of Society." However, the planners placed agricultural extension programs as a subhead under "Quality of Community and Family Life"... presumably

with equal rank as the other eight subheads under the three categories of major priorities. The publication contains 45 pages; comments specifically about agricultural programs take up only three of them.

— Most bulletins from the New York State College of Agriculture and Life Sciences will be for sale only, beginning on January 1, 1972... including the fulfillment of requests by New York State citizens. This reflects a tightening budget crunch afflicting agricultural research and extension programs at all administrative levels, and at all colleges.

Cooperative extension was originally set up to implement a national public policy calling for improvement in the efficiency of producing food and fiber... and greater opportunity for farm people. The organization posted a record of unparalleled success on both counts for over half a century, one that many underdeveloped nations around the world seek to copy.

But farm people have become a tiny minority, and legislators complain that public funds supporting agricultural research and extension are being spent on a small (and shrinking) segment of the population. This, in spite of the fact that the entire U.S. population benefits from the most abundant and economical agriculture on earth (only 17 percent of our disposable income is spent on food). The primary beneficiary of agricultural research and extension has actually been the consumer all along.

Increasingly, extension and research people have to defend their past and present successes, in response to critics who question the "social relevance" of those accomplishments.

Some bitter critics of agriculture have a narrow range of experience... and little historical perspective. Therefore, it escapes their notice that the most "socially relevant" kind of ecological problems occur in those countries where the majority of people are chronically hungry. Missionaries agree that no man lifts his gaze toward God until he has enough food to still the clamor of his stomach.

Extension, rolling with the punches of demands, and feeling the wall at its back, began some years ago to redirect its efforts... and to move toward trying to be all things to all people. Its personnel began teaching such diverse audiences as big-city youths how to survive in the ghetto, suburban youngsters how to care for expensive horses, and communities how to develop new industries.

It is my opinion that commercial agriculture is coming of age in our society... and that farmers need to recognize that public funds will no longer be available for agricultural research and extension activities in as large dimension as was once the case. Increasingly, agribusinessmen... and farmers themselves... will have to assume a larger share of the financial burden.

Compounding the problem of cutbacks in public funds is a wave of anti-technology emotion that besets a substantial number of Americans at the moment. In the normal cyclical movement of human attitudes, science and technology... once placed at the top of national priorities by Russia's Sputnik... are now at a low point in public esteem.

In order to meet the needs of a society in ferment, extension must adapt to the times... changing its programs to insure widespread public support. In doing so, of course, it always runs the danger of becoming so diffused that its role is not sharply in focus... and an array of parallel public agencies can take over its functions, as apparently happened in Oneida County, Wisconsin.

In the crucible of change, lay and professional leadership alike should remember that the rhetoric of demand is all too often not associated with the resources to carry out the sometimes grandiose programs being proposed. In fact, those that clamor the loudest can be the least willing to provide support to the very agencies charged with greasing that squeaking wheel.

The Extension Service is banking its fires a bit in the furnace labeled "Agriculture"... in order to throw more coal into the furnaces powering other programs designed to benefit larger numbers of people. Done skillfully, extension administrators can hope to continue useful programs directed toward the commercial agriculture that meets man's endless need for food... and at the same time create new (and highly visible) programs directed especially toward the affluent suburbanite, as well as the poverty-stricken resident of the inner city.

Whether extension will be as successful in coming to grips with massive social problems as it was in enhancing the efficiency of agricultural production remains to be seen. But in our times, and in our troubled society, it must make the effort if it is to survive.

A BELLYFUL

Why did the transportation bond issue of \$2.5 billion fail to win voter approval in New York State? Does it really mean that Empire Staters are opposed to better highways?

No, the real problem is that taxpayers are fed up to the ears with such things as the fantastic costs of the Mall at Albany. And they have a bellyful of the exorbitant costs of a long lists of such facilities as the new dairy-barn complex at the Dryden Farm of the College of Agriculture and Life Sciences... costs imposed by state architects who require cow-palaces so expensive as to appall even the college personnel in the college's Animal Husbandry Department.

About such boondoggles, taxpayers can apparently do nothing... nor can they seem to exert much direct influence on the runaway spending that has already plunged New York State \$5 billion in debt. But they can vote "no" on a few things such as the transportation bond issue... and the majority of them did!

Maybe it was the wrong vote, at the wrong time, on the wrong issue... but if politicians would be a bit more careful about their spending ways over the long run, then taxpayers would more readily believe them concerning a supposedly critical issue such as the need for transportation money.

At least one of the widely-published advertisements concerning the bond issue didn't help... claiming as it did that a "no" vote would create a situation where, "All work on highways, buses and railroads in New York State will grind to a halt." That statement was obviously false, and bald-faced attempts to scare voters backfired.

Governor Rockefeller and legislators, the people are trying to tell you something!

THAT REMINDS ME...

The New Hampshire dairyman was visiting with a banker:

"Can I borrow a dollar, John?"

"I reckon so... do you have any collateral?"

"Yep... this thousand-dollar government bond."

"I'll have to charge interest, you know, at six percent, Nate!"

Nate allowed as how that was reasonable and the loan was made.

After seeing the loan renewed for several years, the banker couldn't restrain his curiosity, and asked Nate how come he continued to borrow that dollar when he had a thousand dollars in collateral.

"Well," Nate replied, "I used to pay you six dollars a year for a lockbox to store that blooming bond... now you keep it in the vault for only six cents!"



Apple Box — The “store-bought” apple is a sometimes thing; sometimes it’s crisp and juicy and tastes good like an apple should! Too often it’s mushy and unappetizing. Now, however, apple quality at the consumer level will be getting more attention because of a “little \$5,000 box” that the New York-New England Apple Institute has donated to the NYS Hudson Valley Research Laboratory.

The little box is actually an electronic device known as an internal quality analyzer. With it, researchers can carry out precision studies in such things as chlorophyll content and browning in apples . . . and later may be able to detect rate of ripening so that shelf life of the fruit can be determined.

One of the distinctive features of the analyzer is that it is non-destructive to fruit. An apple can be tested over and over, and at intervals of time, without being destroyed.

Angel Hair — Mrs. Walter Geisler, of Munnsville, New York writes that she has had a problem with a bird-control material made of acrylic fibers she describes as looking like the “angel hair” appearing on figurines used at Christmastime.

She used it on strawberries, but had an extremely difficult time getting it off so she could harvest the berries. She concluded that the material may work well to keep birds off some things, but her experience was frustrating when it came to strawberries.

Dwarf Pear—The hardy, high-quality Tyson pear is now available on a dwarf-size tree developed and bred to grow full-size, flavorful fruit and lots of it. The new Tyson has another plus feature . . . it’s ideal for espaliering.

Espaliering is an unusual landscaping touch in which a young tree’s branches are restricted to a definite, symmetrical number and trained into the desired pattern against a trellis or plane surface. The fruit forms on selected spurs at uniform intervals.

There are dozens of forms of es-

paliers, limited only by the imagination.

The dwarf-size Tyson is not a novelty tree. It was developed especially for home growers by Stark Bro’s Nurseries, whose 64-page catalog of nursery stock, including many types suitable for espaliering, is available by writing to the company at: Dept. X80391, Louisiana, Missouri 63353.

Birds — Grape growers report that birds continue as one of the biggest problems they face. Devices that make loud exploding sounds will consistently move starlings, but not most other birds . . . especially not the robins that sometimes congregate by the thousands in vineyards.

One thing that has worked against

robin redbreast . . . use a three-wire trellis and train grapes to the bottom two wires, using the top one as a catch-wire to hold the upper canopy. This seems to cover grape clusters and make the vineyard less appealing to birds.

Electrical devices broadcasting bird distress signals will also frighten starlings, are not objectionable to people (as exploders are).

One grower reports spraying the woods along the edges of his vineyard with parathion, and it kept birds away.

Crop Loss — Road salt has become an ecological problem for fruit growers in the Niagara area of Canada. Terminal dieback of shoots on peach trees has been observed

as being most severe on trees next to the highway. Chemical analysis has shown chloride concentrations to be highest in the soil and portions of the tree closest to the highway.

One grower estimates that he has had a crop loss of \$50 per tree in that portion of his orchard next to a major highway. Salt applied to the highway is apparently being splashed and blown onto adjacent fruit plantings. A similar situation has been reported in Erie County, Pennsylvania.



Give your fertilizer a winter home and Agway will pay the rent

Agway plants simply don’t have the storage space for all the fertilizer needed by farmers. So your cooperative will pay you up to \$4.50 a ton (or more depending upon analysis) to store what you need on your own farm. During the first discount period, for example, 15-15-15 analysis, or a total of 45 units at 10¢ per unit, gives you a discount of \$4.50 per ton. And you don’t have to pay for the fertilizer until March 6, 1972.

In addition, the fertilizer you store on your farm from November 1 through June 30 will be replaced if loss is due to fire or from water used in fighting fire.

Figure your requirements and place your order now for delivery by December 18 and get the maximum allowance. Agway will gladly help you plan your 1972 crop needs.



Farm Enterprise Service

1971-72 storage discount periods	Per unit discount N-P-K ammoniated grades	Per lb. blends spread on the land.
November 1 December 18	10¢	.5¢
December 20 January 29	8¢	.4¢
January 31 February 26	6¢	.3¢

FLETCHER THE **4-H’R**
© JOE E. BURESCH



“I NEVER HAVE ANY DELINQUENT ACCOUNTS. MINE’S A CASH ON THE LINE BUSINESS!”



Tioga County dairyman Bill Needham (left) and Extension dairy specialist Bill Menzi are outlined against the new free-stall heifer barn at Needham Acres.

HANDIER HEIFER HOUSING

by Bill Quinn*

CALVES and heifers should be first-class citizens in dairy country. All too often, however, they receive only second-class treatment!

Over the last several decades, the typical northeastern dairyman has been constantly expanding, modernizing and upgrading facilities for his dairy cows. But the lot of his calves and heifers has been that of a stepchild . . . all too often making do with any crumbs left over.

When the hogs left the farm, the heifers moved into their quarters. When the hens went the way of the hogs, the henhouse was next pressed into service.

Makeshift

The old machine shed, the barn next door, the former chicken house, the unused corncrib . . . whatever, in fact, was available . . . became their home. Seldom, if ever, was housing constructed expressly with young cattle in mind. As far as heifers were concerned, it was make do or do without. No rural renewal for them!

Even the new "turnkey" free-stall barns, which have been springing up in our northeastern dairy country during the past decade, have seldom included facilities for calves and heifers. Like the hoghouse and henhouse, the abandoned dairy barn was considered fit quarters for the young cattle. But now there are signs that the traditional lot of the dairy young stock may be in for a change. Innovators are starting to construct housing specifically designed for young stock. And with good reason, too!

Bill Menzi, an Extension dairy specialist in New York's Southern Tier, points out some of the advantages a dairyman can gain when he plans for both cows and young stock at the same time. He stresses the possibilities of more efficient use of available equipment, of mutual manure-handling methods and of dual use of silos and other feed storages.

"Too many dairymen," comments

Bill, "move out of an old stanchion barn into free-stalls . . . then, by putting their heifers into the stanchions, end up losing the efficiency they gained."

Bill is a strong believer in planning for the heifers at the same time as the new barn is planned, even if a dairyman doesn't have the money to build it all immediately. Many dairymen now realize," he adds, "that they have to do a better job of heifer raising . . . growing them out fast, so they'll freshen early at around two years of age."

New Barn

Bill Needham of Howard Hill Road in Tioga County's Newark Valley Township, who recently constructed a new heifer barn for heifers and dry cows, concurs. "It's surprising how much better they've done this year," he says. "Of course, one of the reasons may be that we're also getting more silage into them. But it's easier to keep an eye on them, too. We can watch them easily, catch them in heat and get them bred."

The Needhams' new heifer barn features a double row of free-stalls with an open yard and headgate feeder. Both the barn and yard are sectioned by gates, sizing the animals into three groups . . . 6 to 12 months (2½'×5' stalls), 12 to 18 months (3'2"×6' stalls), and 18 months and older (3'10"×7' stalls).

The barn and yard open to the south. Cold weather is no problem. "I was quite surprised," reports Bill.

Charlie Whiteman, Cooperative Extension agent, inspects the new heifer and dry-cow facility built by dairyman Bob Osterhoudt near Genoa, New York.



"I thought we'd have to close the barn up more under the eaves, but we didn't do it, and now I don't think we will."

Fed Hay

The animals are fed hay in bunks built into the open face of the barn. Before loading the hayracks, the heifers are driven into the barns and the gates swung closed. Because the new heifer facilities are adjacent to the main dairy barn and are connected by a concrete walkway, Bill Needham is able to utilize his 26-bushel electric silage cart to feed silage to the young stock.

The headgate feeding alley is uncovered, and Bill doesn't plan on covering it. "At least, not from one winter's experience, I wouldn't," he says. "Feed wastage was very small. We fed both silage and hay once a day . . . it took about 15 minutes for the hay and five minutes for each load of silage. We gave them two loads."

The barn has 41 stalls, but last winter Bill ran 44 animals and had no problems. Cost was \$5,600, complete with concrete yard and stalls.

Moved

The calves are started in individual stalls in the main barn, moving at about three months into pens. They enter the heifer barn at six months of age. I asked Bill about transferring animals from the warm barn to the cold. "No problem there," he commented. "I worry more about moving one from outside back in. We clip them immediately if we have to bring one in."

The barn and yard permit straight-line cleaning. "We clean once a week. In real cold weather, it should be twice a week. There's more problem with freezing manure in the inside alley than there is out in the yard where the sun hits it."

An added bonus in Bill's new heifer

housing is the space it provides for dry cows. The Needham Acres farm has 62 milkers on test, but because in the future the dry cows will be housed separate from the milking herd, plans call for climbing up to 65 to 70 head. The Needham herd averages over 15,000 pounds of milk.

Another Example

A heifer unit very similar to the Needhams' has been built in nearby Nichols, New York by Cecil and Bill Haner. This barn, however, is designed for four groups, and features bunk silage feeding from a tower silo, using a gutter-cleaner feeder. The feed bunk is also utilized by the dairy herd for silage feeding.

The Hollenbeck Brothers of Candor, New York enjoy a majestic 25-mile view. They're also enjoying the new heifer facilities they obtained by adding 16 feet of width to an existing frame building 20×60 feet long. Their unit is similar in design to Needham's, but features a covered rather than a open yard.

Art and Walt Hollenbeck are enthusiastic about this new unit. They like the versatility it permits in cleaning. "We clean often," they say . . . "but, if you're rushed, you can let the cleaning go for awhile." The unit is divided for three groups, ranging in age from six months to freshening. Gate locations are easily adjusted to permit changing the number in a particular group.

Like Bill Needham's, this barn has two rows of free stalls balanced against a headgate feeding alley running the full length of the barn. This design feature insures enough feeding space for all animals to be fed grain at the same time.

Good Ones

The Hollenbeck heifers were turned into the barn the 31st of January. They received no silage, but were fed hay and some grain. Apparently they prospered, for Art and Walt report, "This year, for the first time, we had two heifers producing 70 pounds of milk or more per day in their first lactation." Animals like that should be able to hold their own . . . even in a herd which last year averaged 17,800 pounds of milk and 639 pounds of fat!

One of the top-producing herds in the Empire State's Tioga County for many years has been the Moore Hill herd near Nichols. Bob Moore, whose 70 big Holsteins are now averaging 18,000 pounds plus, can look into Pennsylvania from the vantage point of his hilltop farm.

Addition

Bob recently added a unique young-stock unit to his tie-stall dairy barn. The unit includes facilities for heifers from birth to a year of age, and permits an unusually large number of animals for the square footage it contains.

In addition to elevated individual stalls for the youngest animals, the unit houses three pens, each containing 10 free stalls. The largest stalls are sized 2'10"×5' for animals up to a year of age. A box-type hayrack serves as a divider between the two larger groups of heifers. A gutter cleaner chain moves behind the free stalls. Dan Moore, who is associated

* Cooperative Extension Agent, Onondaga County, New York.

with his uncle in the operation, claims he can hand-scrape the pens into the cleaner in about 10 minutes.

Plans

Bob's plans were to start animals in the smallest stalls and move them to successively larger ones as they grew. "But we had too many fall calves to make it work the way we'd like," he reflected. "You either have to build more area than is needed to start with . . . or else build an adjustable stall. Counting our new crop of heifers, two-thirds of our animals last year freshened in August, September or October."

Bob Osterhoudt of Genoa in Cayuga County, New York . . . who about five years ago built a 120-cow free-stall barn . . . last year constructed a 30'x150' free-stall heifer barn, with a concrete yard 30 feet wide. The barn is designed four four groups . . . the first for animals from 8 to 12 months, the second for animals 12 months of age till bred; the third from breeding to freshening, with the fourth section for dry cows.

The first three sections each contain successively larger-sized free stalls. The dry cow section is a bedded pack. Capacity is 88 head of young stock, and about 25 dry cows. The free-stall rows run "crosswise" of the barn with the alleys opening onto a concrete yard edged by a covered concrete bunk. A concrete apron outside the bunk provides a firm surface for movement of the silage-feeding wagon.

Old Barn

Calves up to eight months are housed in the old stanchion barn. Bob doesn't like to turn his animals out in mid-winter. "Up here, the weather's pretty severe. So either the young stock get out to the new setup by October, or I overwinter them in the old barn."

The new barn is working very well. Nevertheless, I asked Bob what he would like to change if he were starting over. Like most dairymen, he saw some chance for improvements and was very candid about them.

"I'd use a single-pitch roof instead of an A-frame . . . too much snow and rain end up in the yard. I may end up putting on gutters. Nor am I satisfied with the gates," he went on. "They're just too weak, and the posts which hold them are a pain in the neck. Someday I may build some drop gates that can be lowered for holding the heifers in. Nor do I believe I'd recommend a roof over the bunk, particularly with young stock and dry cows . . . they don't have to eat during a rain; they can always come out and eat after it stops."

"And next time I think I'd build in a cable to keep the heifers out of the bunk, rather than using an electric wire as we do. Finally, I might put a double slope on the concrete yard . . . one slope away from the barn, the other away from the bunk, with a depression in the center."

Bob does have some slope toward the manure collection area at one end of the yard. "But the moisture doesn't move too well," he comments. "The heifers pock things up too much. Oh yes," he adds, "there

should be provision for gates to form a pen in the dry-cow area just in case a cow gets in trouble."

The Putnams

In Schoharie County, New York, Cooperative Extension dairy specialist Jack Adams describes a 48'x74' heifer building erected by Victor and Carl Putnam of Cobleskill. "The layout offers a promising method to keep several groups of heifers in free stalls, and still feed and clean with good labor efficiency."

"The design uses a single-slope underslung truss on one side, with aluminum roof and steel sides. The alley on the other side services the feed manger, and is connected to the cow barn by a covered ramp. All animals eat at this one-sided

manger, and use two rows of free stalls along the second drive floor."

"The three age-groups are divided by gates across the full width of the building. Each drive alley can be cleaned by driving animals from one alley into the other and shutting them out (with the wide divider gates) until that alley is scraped. Manure is pushed against a concrete buck-wall at the end of the building, and lifted into the spreader parked on the same level as the floor. No animal needs to be moved for feeding. The free stalls are built in three sizes, using pipe and plank, and three heated buckets provide water along the feeding alley."

The Putnams term their new barn "a real improvement." They especially like the complete cover

from snow and the covered connecting alley between the buildings.

In Jefferson, New York, also in Schoharie County, Anthony Sivos is completing housing for 80 heifers in a 56'x126' structure, part of which will be used for a machinery shop and equipment storage. Hay will be stored above the free stalls, close enough so heifers can pick at the bales and let the "wasted" hay fall into the stalls for bedding.

Silage will be fed outside on a paved pad at the far end of the building. The building itself uses a pole frame with truss rafters. The ceiling is formed by painted steel with ample skylights; the side walls are steel painted green on the outside and a light-reflecting white on the inside.

(Continued on page 11)



Merc. Wherever there's a job to do.

There's an old saying, "When the going gets tough, the tough get going."

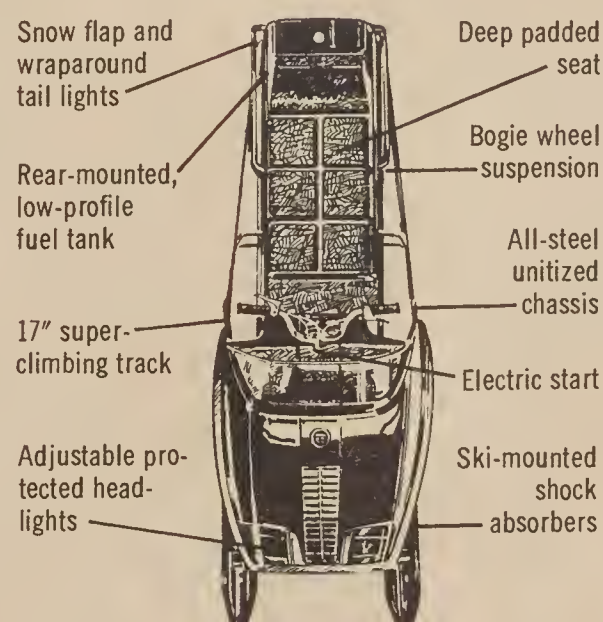
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MERCURY



Gayway Farm Notes

by HAROLD HAWLEY

STORING CORNCOBS

In past years we have hauled our ear corn from the field to the silo where we ground and blew it into the silo, ground cob and all. We've always felt that the cob had some value even in addition to the minerals it contained.

This year we switched to a combine for harvesting corn. Therefore, we had the option of saving no cob or about any proportion of the cob we chose.

With a big crop and some anxiety about ability to store or sell all of it at harvest time, we decided not to use up much space just to store cobs. Accordingly, we set the cylinder fairly close to reduce the size of the pieces of cob and adjusted the sieves so as to save about a fourth of the pieces.

Storage Costs

When you get right down to cases, it's a little hard to justify storage costs on corncobs just because they seem to have some value in the ration. Maybe as our knowledge increases we can find a justification for including them along with the corn, or perhaps we will just give up the practice altogether.

In past years we have run our ear corn into the forage harvester with a one-inch recutter screen to at least crack or break up the kernels. It took a lot of power, probably a lot more because it was never easy to feed the machine too evenly.

With shelled corn and small pieces of cob, the flow from a gravity wagon or truck can be kept uniform. With no cobs to chew up, the forage harvester handled the job in nice shape. Best of all, the tractor just wound up and handled it good. Unloading was, therefore, much smoother, quicker, and easier than it ever was with ear corn.

While we were filling, we had to shovel out enough from the silo each day for the cows. It's hard to imagine anything smelling much nicer than that big pile of ground corn did when we went up to throw some out. It's nice to get it full and get the silo unloader operating, but until then, we do enjoy seeing and smelling that big pile of feed as it grows each day.

SOFTENING THEM UP

It's a cinch that most luxuries and labor savers become necessities once we've used them for a while. Of course, tractors keep getting larger and need for power steering becomes more obvious but dealers tell us that on even some of the less monstrous models, most buyers go for the power steering even if it is an optional item.

Nobody is about to ask for the old style metal seat with the little

layer of padding between steel and muscle...ham muscle, that is. The adjustable, cushioned, deluxe jobs are almost standard.

For years, we've picked corn with mounted two-row pickers in all kinds of weather and thought nothing of it. This year we are operating our combine from within a cab complete with heater and fan and loving it! No one goes out and intentionally punishes himself and, until he tries it the easy way, most jobs don't seem all that bad. Once the newer, better, easier way is tried though, it's rough to turn back.

It's like getting to use a new car or tractor for a few days. Going back to the family heap or the perfectly adequate tractor seems like a real hardship. So soon we get soft and spoiled!

NOTHING FOR NOTHING!

I'm a firm believer that nothing is free. All things carry a price tag. Money, time, loss of freedom, or whatever.

Here we are about ready to have a referendum on milk promotion which would make it mandatory for all to participate if the necessary majority so votes.

How many times have I heard someone say, "Boy, I'm for promotion but this mandatory bit bothers me. It means a loss of freedom."

As with anything else there is a price. Retention of every individual producer's ultimate freedom means we will likely never have an effective milk promotion effort. Freedom of choice in this matter means that for various reasons a sizable percentage of the milk producers will elect not to participate, but continue to reap the benefits of promotion without sharing in the costs.

For years most of us preferred to let it go that way...hoping that, as time went on, the non-participants would voluntarily join the team, pull their share of the load, and we would all benefit. I still wish it could be that way.

How Long?

Realistically, however, how long should an industry wait for this golden day when all its members are willing to pull their share? How, in all fairness, can those who authorize promotion deductions be expected to carry the entire cost of the advertising campaigns? So, reluctantly, many of us have changed our position over the past couple of years.

We feel it is worth the loss of a little freedom for the results expected. We feel that fairness and progress are worth something, too.

The purists will tell you that once you compromise, give up a little freedom here, a little there, that it is just like moral decay — no stopping. I don't buy this. We've

all been giving up freedoms for as long as we can remember.

We gave up freedom when we went out for "the team." We accepted the discipline of training and rules willingly as part of the price to be part of a winning team.

The Question

Most of us willingly and happily gave up a whole bundle of freedoms when "the right girl asked us"...and would argue that it was a most satisfactory exchange.

This list could be multiplied almost endlessly. Does this mean that we have, therefore, reached the point where knowingly giving up another little piece of freedom means we bankrupt our will to objectively decide future issues? I believe not. Down the road we will decide on such things as mandatory vs. voluntary participation in marketing, bargaining efforts, and a whole lot more decisions.

Presumably, we will still have enough character and judgment left to decide these issues on their merits.

STILL A SCARCE ITEM

Skilled veterinary help is a recognized "must" for any livestock producer. Across the state at any gathering of farmers it is a common occurrence to hear someone say he either has no veterinarian or that his man is so overworked that he just can't get around to everybody when needed. Others, of course, are sitting pretty with a good man quite readily available.

There is no easy answer to such a problem. Over all, a few more large animal practitioners are urgently needed. It seems that all too often either some government inspection service job or a racetrack opportunity soaks up any available new talent that is graduated.

One encouraging aspect is the attitude of many good practitioners who are helping farmers to help themselves. Many of the routine and even emergency things are being done by the owners after receiving some help and instruction from their veterinarians. This obviously relieves the professional from chasing hither and yon to do things that less skilled people can do, and leaves him free to do the more demanding work he was trained to do.

BACK UP AND TRY AGAIN

For years there has been an effort to eliminate fence rows, enlarge fields, and generally improve the efficiency of machinery. One of the little old things some of us didn't take into consideration was that an old hedgerow might have its faults, but it sure did stop the flow of water.

Once it was eliminated, the water was free to zip along, picking up speed and soil. In our case, we've decided that eliminating hedges and fence rows was the right move, but we must leave a sodded strip now and again to help hold the water and soil.

We hate to admit it, but after five or six years of continuous corn some of our land becomes much less open and porous and, of course, it washes more easily. Inasmuch as we hope to continue a two-crop

rotation...alfalfa for about three years and corn for five or six...we figure the only way to stay away from washing and gullying will be to leave more sod strips in the bigger, sloping fields.

MISUSED MOTORS

In common with thousands of other farmsteads, we have more electric motors than we care to count. They do the work of a lot of men quietly and cheaply...or at least quietly.

It's getting to be almost commonplace to have a motor at the repair shop. Most times the verdict is to the effect that we had the wrong motor for the job we expected it to do. All too often we are told it got wet, or full of chaff and dust.

Now I ask you, if you buy a motor to use on a high pressure pump combination in a parlor wouldn't you naturally assume it would have its own built-in design for protecting it from moisture?

Or take that 5 hp job on your silo unloader — wouldn't it be reasonable to expect the manufacturer would have selected the best one for the job of throwing out silage? He would know that silos can be pretty moist. He also would recognize that some silage might get into or at the motor.

So what do they do? Buy and supply the right motor for the job? Not if the repair outlet is telling it like it is! We keep paying out good money to keep motors running which wouldn't be in trouble if they were moisture-proof or chaff-proof or at least protected when they were sold.

You may say we should have bought the right motor in the first place. Maybe so, but we were naive enough to assume that the machine would come with a properly designed motor.

We have a low level milk line in our parlor with a collection jar and then a pump to move the milk to the tank. The pump and motor are of necessity almost on the floor; it wasn't surprising that moisture got into the motor sooner or later. Presto! You not only have a problem on your hands trying to get rigged up to pump your milk, but sooner or later there will be a nice bill for fixing the motor.

After a couple of experiences with this we put plastic bags over and around the motor to keep it dry.

The same problem occurs in the milkroom with the pump motor rig that washes the tank. As we wash the floor with a high pressure hose, some water splashes onto the motor used on the tank pump. So we cut the top off a plastic jug and put it right over the motor. So far neither motor has given trouble.

In my book, all these motors should have come designed to protect themselves from moisture. The motors used on conveyors and augers need a change in design to keep out silage, chaff dust, and moisture.

HOLIDAY WISHES

All of us at Gayway Farms wish each of you a very merry Christmas and a fine New Year.

American Agriculturist, December, 1971

Housing

(Continued from page 9)

Not many buildings specifically designed for the rearing of animals from calf right through to calving have been even designed, much less built. In fact, much is still to be learned about the best way to build them.

But many of the components that can be worked into a "complete system" are being tried. Innovators like those reported here . . . dairy-men who are farm testing new ideas and approaches . . . are proving which things work, and which things don't!

Universities, as well as agri-business concerns, are also testing design concepts for housing, feeding and managing herd replacements. For example, a new 24'x60' calf barn erected at Cornell University is providing a practical laboratory for testing some of these concepts.

While much is still to be learned about the best way to build a completely integrated calf-to-calving setup, certain design principles have become fairly well accepted. Here are four suggested for the calf nursery:

1. Insulated, well-ventilated, temperature-controlled quarters.

Cold by itself doesn't hurt a calf. In a South Dakota experiment, 36 baby calves were quartered out on the plains in little hutches in the dead of winter. There were frosted ears, but only one calf was lost . . . much less mortality than that experienced by their counterparts in conventional quarters.

But this was a "bug-free" environment. Most of the calves on our northeastern dairy farms do not live in a bacterial or viral vacuum . . . so they are less likely to withstand the added stress of extremely cold quarters. Good ventilation is a must, however.

2. A dry, draft-free stall or individual pen for each baby calf.

WATER SYSTEMS

The Water Systems Council, an association of farm and domestic pump manufacturers, makes the following postpaid publications available:

What You Need To Know About Wells and Water Systems. A summary of the latest information about water well construction, pump installation and water treatment. Per copy . . . 50¢.

Water System and Treatment Handbook. Complete technical handbook for those in the industry and for school at all levels. Topics range from system operation to installation and servicing. An up to date bibliography of source materials is included. Per copy . . . \$3.50.

Water Systems Basics. Refresher course for plumbing contractors, drillers and others doing water systems work. Deals with fundamentals and equipment, system sizing and pump selection, jet pump installation and troubleshooting, submersibles, and water treatment. Per copy . . . \$3.00.

Send check or money order to: Water Systems Council, 221 LaSalle Street, Chicago, Illinois 60601.

American Agriculturist, December, 1971

Solid partitions restrict contact between animals, and help control drafts. Many find elevated stalls with a slatted rear portion aid in keeping young calves clean.

3. **Facilities for feed storage, feed mixing and equipment washing.**

Efficient care of the unweaned calf depends on the convenient location of a water heater and wash vats . . . as well as equipment for routine care and cleaning, and for mixing of feed.

4. **Easy Cleaning and Sanitizing.**

In addition to provisions for collecting and cleaning waste, the nursery should have impervious surfaces that readily lend themselves to cleaning, flushing and sanitizing. A steam jenny works well . . . although some report that the steam

itself makes it difficult to see how good a job is being done!

High pressure hoses also can be used. One calf raiser has purchased a used fire truck pumper to clean his calf barn. Portable stall units . . . which may be readily moved out with a tractor loader to be "sun cured" . . . are a desirable feature for breaking an infection cycle.

Older calves need little in the way of special housing except shelter from the wind, rain and cold. They do need readily-available water . . . and enough protein, energy, and minerals to keep them growing well.

Efficiency, with convenience and economy, are the goals. Design considerations involve provisions for grouping of animals by size or age . . . easy feeding arrangements . . .

straight-line manure scraping and collection with a minimum of animal movement, or gate openings and closings.

A free-stall shelter with a paved yard can easily meet these design criteria. Penn State Plan #723-202 provides details of a good arrangement for housing and handling heifers from two months to two years.

Good quarters, of course, can never be a substitute for good management. But good facilities may help to cut down on the tragic losses which some dairymen experience. More than one study has shown that 20 percent of the heifer calves born on some farms do not survive their first year. No dairyman can afford to lose that proportion of his future herd!

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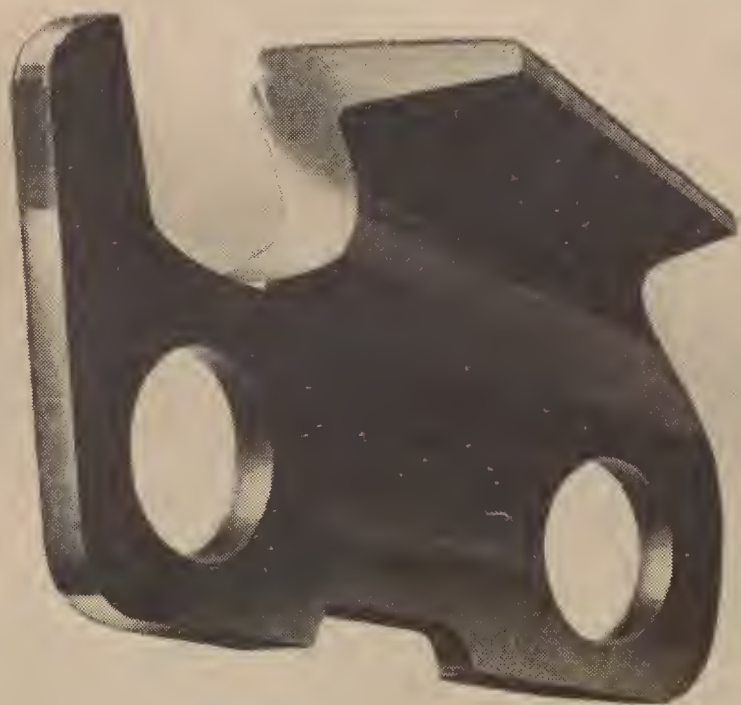
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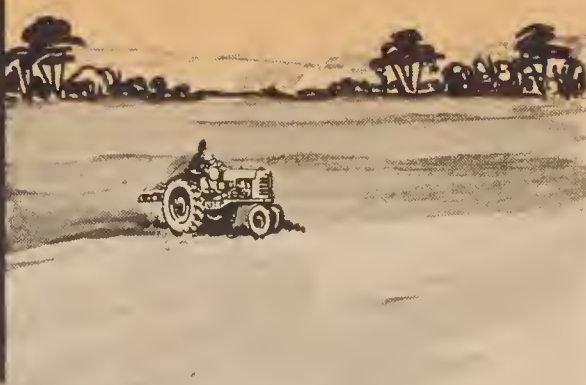


SAW CHAIN & ACCESSORIES

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What's NEW in the FIELD

by W. D. Pardee



SEEMS odd to talk about severe corn leaf blight damage, with the biggest crop in history pouring into Midwest terminals, hammering down corn prices the country over. But while the Midwest went almost scot-free last summer, the Northeast did not. Southern leaf blight hit hard in Maryland, Delaware, Virginia, New Jersey and southeast Pennsylvania. Further north it caused less damage, but the disease was widespread through New York and New England.

Meanwhile, yellow leaf blight... no relative of Southern, but a worthy comrade in crime... swept widely across the Northeast, reaching further north into upstate New York than ever before.

"N" or "T" Seed?

When planning your seed purchases for next spring, keep these diseases in mind. If you farm in areas hard-hit by either of these diseases, find hybrids adapted to your farm, then try for the "N" cytoplasm versions. This cytoplasm normally carries resistance to this disease, while "T" cytoplasm is likely to be susceptible.

Your choice is easy if you farm in areas hit by Southern leaf blight last summer. Farmers in Maryland, most of Pennsylvania, New Jersey and Connecticut should select the best hybrids available in "N" (normal cytoplasm) seed. The same is true in New York's Hudson and Mohawk Valleys, and in pockets further west.

In northern New York, or at higher elevations in Southern Tier counties and areas in western New York where Southern leaf blight

has not been, farmers may decide to use "T" hybrids for silage or for limited acres of grain.

If you're farming in these areas, start with hybrids that you know are adapted to your farm. Then check to see if you can get "N" seed. Don't jump to unknown hybrids. A poor or unadapted hybrid can cost you 10-30% in yield, worse than you're likely to lose from disease.

The supply of "N" hybrid seed looks good for most areas. Through crash programs in tropical areas last winter, most companies were able to shift nearly all their parent stocks from susceptible "T" to resistant "N" versions. Some tightness exists in medium-short-season areas of New York where several major suppliers were unable to completely shift popular lines. The consolation is that farmers in these areas have some leeway to gamble, certainly for silage, and even for grain, if there's been no blight in their region.

Reams of articles have been written about the whys and wherefores of "T" and "N" strains, including an article in this column a year ago (see December 1970 issue). Suffice to say, hybrid seed of the "T" type can be produced without costly hand labor, while "N" seed needs hand detasseling. And that costs money.

Chances are you've already noted price differences, if you've been pricing "N" seed. Costs vary, depending on the hybrid and the problems involved in detasseling. Most common range is from \$3.00-\$5.00 per bushel over "T" seed.

(Continued on next page)

The Song of the Lazy Farmer



the hour, she pampers ev'ry little flower as though 'twere made of platinum with leaves and stems of gold, by gum. She waters each one ev'ry day and sprays to keep the bugs away; she feeds a dozen kinds of stuff, each plant is fertilized enough to cover any good-sized field and get from it a bumper yield.

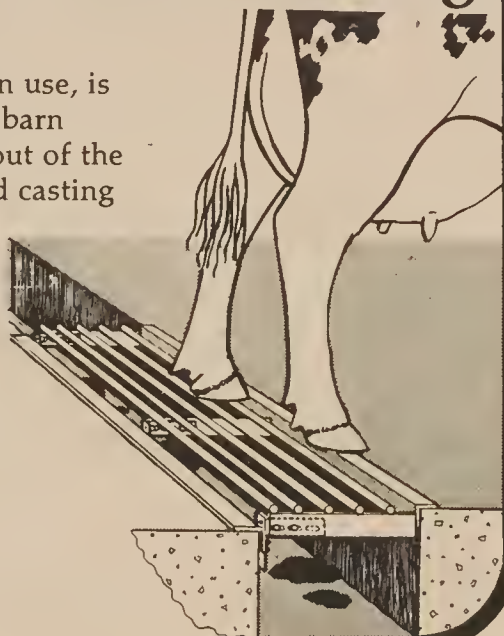
If plants curl up or spot appears, Mirandy is reduced to tears. She calls some flower-growing friend, confers with her for hours on end, then reads some book or bulletin long after dinner should begin. But if I try to help a bit, my garden clubber throws a fit; she says there's evidence to show I can't get any plant to grow. If I suggest she cull the weak, she gets so mad she cannot speak. Recov'ring fast, she says with scorn, "Why don't you go and nurse your corn?" Of course, if I'm so all-fired dumb and haven't got a good green thumb, I guess I'll let the farming be and she can do it all, by gee.

Why is it women fuss so much about their potted plants and such? Mirandy has the house jam-packed with blooms and vines all neatly racked. She worries o'er them by

Lengthen cow beds without rebuilding

The Sam-Fran Cow Bed Extender, shown in use, is an ideal way to lengthen cow beds without barn alterations. It keeps hind legs and udders out of the gutter. Prevents teat and udder injuries and casting of withers. Cows stay cleaner, too.

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Farm Enterprise Service

AGWAY

This change isn't due to inflation. It just costs more to hire people to go out and pull those tassels out by hand!

Procedure

Here's a tip, if you suffered damage with a "T" type last year and are tempted to switch hybrids. Check first to see if you can get the same hybrid in the "N" version for spring. Most hybrids have been wholly or partially shifted over and there's some "N" seed available for nearly all hybrids. If you've had good experience with the hybrid in the past, and like it for your farm, don't drop it because of one year's bad experience with blight. Just switch to the "N" version and you should be all right. The "N" version should perform the same as the "T" would if there were no blight around... and lots better if there is.

To clarify the situation, let's look at these diseases as they hit the Northeast this past summer, then look ahead to their prospects for next year.

"Southern"

Southern corn leaf blight, *Helminthosporium maydis*, race "T," hit the 1970 Midwest corn crop harder than any disease in history. Starting growth in small lesions (dead spots) on leaves, the fungus kicks out millions of spores which spread the disease to neighboring plants, fields and farms.

Leaves die back and the spores splash or blow onto stalks and husks. The fungus can enter the stalk, causing the stalk to rot, or by killing stalk tissue, open the way for other stalk-rotting fungi. On the husk, the fungus can penetrate through to the kernels, causing a black kernel rot. Or it can enter through the tops of the ear, come up through the shank, or grow right through from outside the husk.

Toxin

Toughest feature of this disease can be the toxin it produces. Once growth gets started, the fungus can send this chemical poison out ahead of its growth, killing the whole corn plant in a matter of days.

Losses can be small if the disease moves in late. Here it may cause an early die-back of the leaves and increased stalk rot. Losses are higher when the disease moves in early and finds humid conditions, favorable for its movement into the ear. In this case you get double damage, with reduced yields and lower quality in silage and grain.

Feeding quality can suffer also, but not directly from the disease. Neither the fungus itself nor its chemical by-products can harm livestock. But silage made from diseased corn may be too dry to

pack well, and end up as moldy silage. And diseased grain is lower in energy and so has lower feed value than sound grain.

"Yellow"

Yellow leaf blight, known to scientists as *Phyllosticta*, isn't quite so lethal, and doesn't hit husks or grain. But it can blight leaves and cause early stalk death. This in turn opens the door to fusarium stalk rot, always present in corn fields and just waiting for an opening. Major losses from yellow leaf blight are from reduced yields, poorly packed silage and lodged corn.

Yellow leaf blight was widespread in New York this past summer, and was largely responsible for the severe stalk lodging in many regions.

Both diseases apparently have no trouble overwintering. Yellow leaf blight does this with ease on corn leaves and debris. Southern leaf blight suffers badly during spring thaws and freezes, but lives over in infected kernels on dropped ears, and in corncribs holding diseased corn.

Field, greenhouse and laboratory tests all confirm the hookup between susceptibility to both diseases and "T"-cytoplasm corn. Likewise, "N"-cytoplasm seed is generally resistant.

Be sure to note my use of the term "generally." Occasionally, we spot a hybrid with "N" cytoplasm that is susceptible... or a "T" that is resistant. And there are large variations in resistance. Some "N's" are nearly immune, others suffer minor

damage. The converse is true with "T" lines. Some are highly susceptible, while others aren't hit too hard. So even though you plant an "N" hybrid, watch it for disease, particularly in late August and September.

Sprays are possible, and can be worthwhile if the disease moves in early. Several chemicals are cleared and can be put on for \$3.00-\$5.00 per acre for application. These chemicals don't kill the organism inside the plant, but they can protect the leaves from spore germination. Protection is short-lived and you need several sprays, making this method expensive. A better bet is to plant "N" seed to start with if blight has been a problem in your area.



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American Agriculturist, December, 1971

Northeast FARM EXPERIENCE



Walter Wilson shows system of plastic pipes carrying water to peach trees. Note small connecting pipe between main and lateral, and tiny "spaghetti" pipe that releases water to tree.

IRRIGATES PEACHES

Walter Wilson of Gasport, New York, is experimenting with an unusual method of irrigating a small block of peaches.

Plastic pipe (3/4-inch) is buried just under the surface along the ends of tree rows. Laterals, also of plastic pipe (1/2-inch) are laid along rows, connected to the 3/4-inch "mains" by 1/8-inch (I.D.) plastic. Tiny "spaghetti" pipes (microtubes) go from the laterals to the base of each tree, allowing water to flow very slowly... 1.5 gallons per hour per tube (one tube per tree).

If rainfall is deficient, it requires eight hours of water application per day for several days to apply enough water. A centrifugal pump, powered by a two-horsepower electric motor, pumps water into a pressure tank from a nearby pond... thence to the irrigation system.

The whole setup is relatively inexpensive, and it offers unimpeded movement of people and equipment through the orchard. — G.L.C.

MULTI-ENTERPRISED

Donald Porter and son Bruce operate a farm on Perry Road near Baldwinsville, New York. It's a diversified operation... 14,000 hens, 55 head of beef cattle, plus field crops (120 acres corn, 30 each of oats and wheat, 25 hay).

The laying hens are in four groups of triple-deck cages, each group a different age (each batch about three months apart in age) in order to keep uniform the percentages of various egg sizes. "We've not had any major disease problems we associate with having different ages of birds in the same building," Bruce comments. The same ration goes to all birds... one containing 18-percent protein.

About 70 percent of the eggs produced go to the P & C super-

market chain... the rest are delivered to small grocery stores, restaurants, and other wholesale buyers. The marketing services provided, plus top quality of product, have for years earned the Porters a substantial bonus in price over the Urner-Barry price quotation at New York City. All eggs are graded and candled at the Porter farm.

Poultry manure from pits under the cages is put back on the land... spread every two to three weeks in summer, usually on pasture. The pits have a capacity to go five weeks without emptying.

For three years, the Porters have been growing some no-till corn. In 1971, all 120 acres were planted this way... using a corn planter owned in partnership with a neighbor. A dry August revealed an advantage when the mulch left by no-till helped keep soil moisture from evaporating as rapidly as the case with conventional tillage.

With all the farming going on here, it would seem that there wouldn't be much time for anything else. However, Don is an accomplished builder and has over the years made major improvements to the exterior and interior of the homestead house... much of the timber used coming from the Porter farm.

In addition, Don is chairman of the town of Van Buren's board of assessors, and believes that farmers should take an active part in local politics. Bruce is president of the Onondaga County Farm Bureau, and therefore involved in community affairs at local and state levels. — G.L.C.

BULLRUN FARM

Two years ago, four men formed what is called a "limited partnership" in legal terminology... and started the Bullrun Farm near Montrose, Pennsylvania. Kendrick Howe, who

grew up on a farm in the area, is president of the organization... John Hudson is manager.

So far, there are 2,000 acres involved in the operation... some owned, some leased. There are 400 head of purebred Herefords of all ages on the farm at present; plans call for 400 to 600 cows eventually. Ken reports that the Bullrun crew builds its fences according to the ranch's specifications... including all line fences. No attempt is made to force adjoining property owners to build their half of the fence.

John Hudson comments, "There is almost sure to be a continuing upsurge in numbers of beef cattle on range... and the West and Southwest are about at capacity already. Therefore, it's logical that other areas of the country will see a build-up in beef cattle numbers.

Elbow Room

"The Northeast has large acreages of land that were once used for dairying, but that have gone out of that use. We think there is an opportunity for us to supply the purebred foundation stock... and for farm owners to recover their investment in farm buildings and land through a beef enterprise."

Most of the breeding stock here traces its lineage to movie star John Wayne's beef herd. Bullrun Farm paid \$26,000 for one of its bulls from the Wayne spread.

Ken and John extend the welcome mat to visitors interested in the beef business, especially those interested in Herefords. The address here is R.D. #2, Montrose, Pennsylvania 18801.

It's located east of state highway 267 (NYS 26 becomes 267 south of the border). Go to the hamlet of St. Joseph on highway 267, turn east and keep going until you see the Bullrun signs on the north side of the road. And when you come to a fork in the macadam road near Forest Lake, keep to the left!—G.L.C.

POWERFUL DIVIDERS

There are two men bearing the name Melvin Ackerman... father and son... operating the South Kortright Valley Farms Corp. near South Kortright (Delaware County) New York. As the name indicates, it's set up as a family-owned corporation.

The Ackermans once had stanchions in their barn, but they remodeled a few years ago, and now confine their 76-cow herd in spacious tie stalls. The move reduced udder injuries to practically zero, but created a new problem.

Now at the end of a neckchain providing considerable leeway in reaching along the manger, each cow became a potential grain-stealer. The herd, once posting an annual DHIC herd average of 18,000 pounds of milk per cow, came down to 17,000 pounds. Sure enough, some low producers were getting fat, and some high producers just weren't getting enough grain!

Experiment

To remedy the situation, young Melvin began to experiment with ways to keep each cow confined to her own domain. The result is a simple, yet effective, device that lowers electrically-charged chains between the heads of cows along the manger.

A steady-shock fence charger is hooked to a 1/2-inch metal electrical conduit going the length of the barn above each row of cows. The conduit is supported by large screw hooks positioned about eight feet apart into floor joists, and insulated by slipping some 3/4-inch flexible plastic pipe over the conduit where it passes through each screw hook.

A light chain is fastened to the conduit so it will suspend between each row. After each grain-feeding period is over (before milking night and morning), a crank turns the conduit; the chains wrap up around it, and are thus pulled up out of the way. To avoid the possibility of a shocking experience at the crank, the section of conduit nearest the cranking assembly is rigid plastic, rather than metal,

Too Light

Melvin comments, "The chain I used was too light, so I fastened five-ounce sinkers at the bottom of each one. Probably brass chain would be better as a conductor of electricity... occasionally, a chain gets enough dust in it so the current doesn't get to the lower end very effectively.

"We've learned not to leave the chains down... and not 'hot'... or cows will soon think they can go back to their larcenous ways. We don't want to shock them if we can help it because an upset cow doesn't milk well. But if they know that the

(Continued on next page)



The white cow in the picture gets five pounds of grain per feeding... she's sandwiched between ones getting 17 and 13 pounds. Electrified chains prevent her from helping herself to extra goodies on either side. Melvin Ackerman, Jr. holds weight that gives stability to "hot" chain.

chains are always too hot to handle, they seldom test them after that. We always crank the chains up after every grain feeding . . . the cows can reach all they want to for haylage or corn silage."

Varies

The spectrum of grain-feeding rates in the milking herd here goes from zero (dry cows) to 24 pounds per feeding (48 pounds per cow per day). Some high producers like to take their time eating again . . . and now they can do it, and get it all.

Why not partitions between cows along the manger? "Unless you use a giant vacuum cleaner," Melvin comments, "it's difficult to really clean out a manger having partitions." Cows here always return to the same tie stall, and the amount of grain to be fed is recorded on a tag above each cow . . . generally changing, of course, after each monthly DHIC report is received.

The Ackermans like the kilowatt dividers . . . or maybe they could be called current guidance! — G.L.C.

DIVERSIFIED

Roger Barrott, who lives on Nelson Road near Canastota, New York, produces a variety of farm items. He grows nearly 200 acres of vegetables annually . . . 65 acres of field corn . . . 300,000 Christmas trees on four farms . . . and even grows some ornamental shrubs and trees in a small nursery.

The vegetables include 90 acres of sweet corn . . . a wide range of varieties planted over a period of two-and-a-half months so that corn can be harvested daily for three months. Hand-picked corn is delivered to wholesale customers seven days a week across a sizable part of central New York.

Blackbirds have been a problem in the cornfields across the years, but Roger reports one noise-maker "gun" per 10 acres has been adequate in 1971 . . . and on an every-other-day basis. The pest that is literally bugging him most at present is the corn sap beetle, one that has proven tough to control. Nearly all pesticide sprays are applied by a custom applicator using fixed-wing aircraft.

Roger planted 3,000 staked tomato plants in the spring of '71, and grew 100 tons of pumpkins as well as 50 tons of winter squash. In addition to the pumpkins, he grows Indian corn and an assortment of gourds for ornamental purposes.

Barrott Farms has most things that gardeners like to grow . . . but on a grand scale! — G.L.C.

the middle of August . . . early corn varieties had already reached the early dent to hard dough stage by then.

Silage is loaded out of the bunker with a small payloader-type vehicle, going into a self-unloading wagon that in turn delivers to a silage bunk along nearly the entire length of one long side of the 110×178-foot barn. All cows are on just one side of the feed bunk (3 feet wide, 20 inches deep), so no gates need to be opened or closed during the feeding process.

The dairy herd is divided into four groups . . . three milking categories according to production, and one with dry cows and "tail-enders." Grain feeders are included in the double-eight herringbone parlor (16 milker units), but the Brewers wouldn't go that route again.

"It cost a lot of money to put those stainless-steel feeders in the parlor," Dick comments, "and even more to build all that grain-storage capacity above the parlor . . . and it just isn't worth it." Another mistake, Dick and Herb feel, involves the construction of a 24×70 upright silo near the new barn.

Disadvantages

"The upright costs more per ton stored initially, and its unloading rate is far below the bunker silo's. Furthermore, there is a backup unit available for handling silage from the bunker if any item of equipment breaks down . . . if the tall tub's unloader doesn't work, everything stops until it's fixed."

The Brewers hire two full-time employees, and also hire two other

men to milk eight milkings every five weeks. This way, all the work force gets a day or two off periodically, as well as longer vacations annually.

The herd has been on an all-silage ration . . . mostly all corn silage . . . for a year. In the summer, the Brewers feed flail-chopped alfalfa green-chop to tickle the cows' rumens. So far, they report no noticeable increase in herd health problems . . . something that has plagued some herds feeding mostly corn silage . . . in fact, they report better herd health than they had in the conventional barn previously housing their cattle.

There are about 300 acres in this farm operation. Most of it is located within the city limits of Oneida! — G.L.C.

Farmer Talk...\$\$

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BIG STORAGE

Herbert and Richard Brewer are brothers who operate a 180-cow dairy farm just north of Wampsville, in Madison County, New York. They planted 270 acres of corn in 1971 . . . for filling three upright silos, and a whopping bunker measuring 200×80×10 feet deep.

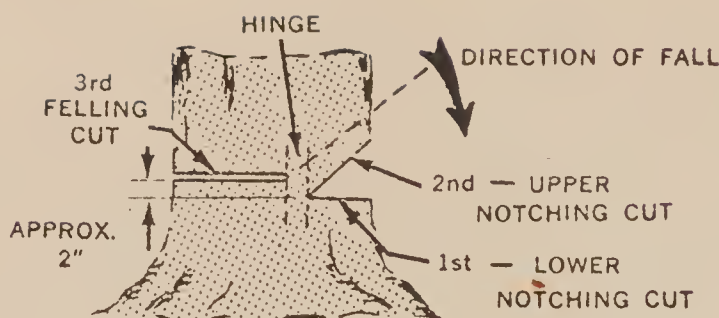
No plastic cover is placed over corn silage in the horizontal storage structure. The Brewers report three to four inches of spoilage on top. Silo filling begins a few days after

American Agriculturist, December, 1971

using your chain saw

by E. W. Foss*

Drawing 1. Tree is notched in direction of fall, then felling cut is located to provide a "hinge."



THE increasing trend of families to live in the country, part or all of the time, and the availability of portable power tools has enabled man's enjoyment of many rural blessings without drudgery. One of the more useful power tools... for farmers and rural non-farmers alike... is the chain saw. Through its use, wood for the fireplace is speedily prepared from cull trees that need removal; thus, in one operation, a landscape blemish is removed and future fireplace warmth and beauty are assured.

The power chain saw is available in many makes, models, and sizes. Through a generation of research and development, they have become reliable, powerful, compact, light in weight, and well balanced. Yet, they are **no toy!** The potential for injury from incorrect use of the saw... and from poor judgment in felling and limbing trees... is ever present.

Selecting a Saw

For the occasional user of a chain saw, where fireplace-wood production and the removal of small trees are the common jobs, a small saw is usually preferred. A saw is sized by its length of guide bar (12" to 30" or more), by engine displacement (from under 3 cubic inches to 7 cubic inches or more), and by weight (from under 10 pounds to 20 or more).

Different makes and models will also vary as to direct vs. gear drive, with gear drives generally present on larger models. Availability of additional features also varies... such features include "solid-state" ignition (which may replace breaker points), automatic chain oiling, carrying case, etc.

Another desirable feature for the person interested in the full use of a chain saw is the roller nose on the guide bar which reduces friction and wear on the bar and chain.

When trying out different chain saws, check their ease of handling, balance when doing both vertical and horizontal cuts, noise, vibration, and ease of starting. You should also check the ease of maintenance... which includes filling the gasoline and oil reservoirs, cleaning the oil filter, adjusting chain tension, and ease of changing the spark plug. Top consideration should be given to the reliability of the dealer and his future

ability to provide service, including repair parts.

Whether you have operated a chain saw or not in the past, ask each dealer to show you how to use his saw, and then **you** try it out, including several different models. Have him point out the location of all controls and adjustments, and watch him as he indicates desired chain tension and proper procedure in starting the chain saw. The position of hands and feet when starting the saw is important.

Always start the chain saw engine outdoors, or in a vented room. The chain saw engine requires a fuel mix of (generally) regular gasoline and 30 SAE oil, mixed at the ratio of 16 to 1... or one cup ($\frac{1}{2}$ pint) of **non-detergent** oil to one gallon of gasoline. Check this with your chain saw dealer, for some manufacturers have differing recommendations; these recommendations sometimes include special oils that in some cases can be mixed at the ratio of 32-1 or $\frac{1}{2}$ -pint oil to 2 gallons of gasoline. Mix the oil and gasoline in a can, not in the engine fuel tank.

While most manufacturers recommend the same 30 SAE oil (or lighter—20 or 10) to lubricate the guide bar, some recommend a special oil, and most manufacturers recommend thinning the oil with kerosene during cold weather.

Make a practice of filling the chain lubrication reservoir with oil whenever you fill the gasoline tank. A saw with a roller nose should be greased with a grease gun every time the chain is sharpened.

Cleaning

Upon completion of a work period with the saw, clean the machine by using compressed air, if available; a brush will also help. The metal fins of the engine must be kept clear of sawdust and dirt to permit air circulation and proper engine cooling. The filter for the air intake should also be removed at least once a day... oftener if a visual inspection indicates need. A puff of air, or tapping of the filter element on a hard surface, will usually shake off the dirt. If the filter is still visibly dirty, soak it in gasoline and shake it dry.

Engine maintenance, other than cleaning the air filter, consists of: (1) maintaining proper idling speed, (2) keeping the best-performing carburetor setting for idle and load

conditions, and (3) ignition maintenance. Hard starting usually signifies either improper fuel mix or worn spark plugs.

Check the response to the choke first, then if there is no firing inspect the spark plug. If dirty, clean or replace it; if the plug has been used quite a while, check the gap. Set the gap according to the manual... otherwise, .025" is suggested. After many hours of use, the breaker points should be checked for gap and erosion; if you have a solid state ignition, this may, after a long period, require replacement. Don't forget to check that your switch is on!

Sharpening

Unless your use of the saw is to be very infrequent, you should purchase three sharpening tools: (1)

A proper-sized round saw file for your particular size of saw chain, (2) a flat file for filing down the depth gages, and (3) a depth gage set to aid you in filing gages to the correct depth. If the depth is too little, the saw fails to cut without excessive pressure, and if the depth is too great, the teeth cut too deeply... causing saw jumping, engine stalling, and excessive strain on the chain and machine. After several home sharpenings, you should probably take your saw to the dealer for a more precise sharpening.

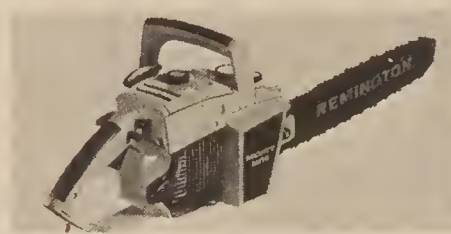
A chain saw indicates the need for sharpening when any of the following occur: (1) The speed of cutting is reduced, (2) Increasing pressure is required for cutting, (3) The saw tends to bind, and (4) The saw tends to curve. Care **must** be used in keeping the saw guide out of the ground, and careful watch must be kept to prevent cutting metal. Harder woods tend to be more abrasive than softer woods, and will require more frequent saw sharpening.

Using the Saw

Read the operator's manual, or operating instructions, before using the saw. Wear proper clothes; a hard hat and safety shoes are recommended, along with gloves and hard-surfaced clothes... no cuffs on pants. The manual will, in addition to engine service and maintenance information, include the proper procedure for felling trees, removing limbs, and cutting the trunk and larger limbs into firewood. Follow these directions carefully.

The following comments merely

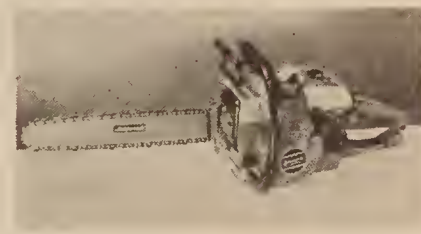
The Oregon Chain Saw Division of Omark Industries is marketing Micro Chisel, a saw chain that can easily be filed with a round file without using expensive guides and gauges. It is available in six pitches and gauges.



A new line of Mighty Mite Remington chain saws features a Low Tone muffler, semi-automatic oiling, and comfort cushion grips for ease of handling. The Mighty Mite weighs only 6 $\frac{1}{2}$ pounds (less bar and chain), but will cut trees up to 24 inches in diameter.



McCulloch Corporation has some 7,000 dealers across the U. S., and they report good sales of saws to farmers and other rural residents. Lower-than-ever prices are helping move four popular models... Mini-Mac 6 (pictured), Mini-Mac 6A, Mac 10-10, and Mac 10-10 Automatic. The company celebrated its 25th anniversary in 1971, and produced its three millionth chain saw!



The Jonsereds Chain Saw, manufactured in Sweden, is distributed by the Tilton Equipment Co., West Rye, New Hampshire. Unusual feature is an anti-kick device that, when kick-back is encountered, instantly switches off the motor and positively stops the chain. A rugged saw, but weighing only 14 $\frac{1}{2}$ pounds, is the Model 50 pictured.



Ford Motor Company is selling three models of chain saws... the Hawk, Eagle I, and Eagle II. All have a spark-retarding muffler and bolt-on bars for easy adjustment or replacement.

*Agricultural Engineering Department, Cornell University

emphasize the instructions found in the manual:

(1) **Felling the tree:** If possible, fall the tree in the same direction it is leaning, and the wind is blowing. You may wish to wait until a day of no wind... or even a different wind direction... before felling a tree.

Care in cutting the notch, and width of "hinge," will assure a proper falling direction; if needed, use a plastic or aluminum wedge in the back cut to tip the tree. Make saw cuts for the notch and back cut as indicated in drawing number 1.

(2) After felling, remove limbs by generally sawing on the opposite side of the tree from where you are standing. Be very cautious of limbs that are under tension, or bowed... they may pinch the saw, or kick back. If a limb is to be cut on an upright tree, make cuts as indicated in drawing 2.

(3) Twelve inches is a common length for stove wood, whereas 18 inches and 24 inches are more common for fireplaces. To avoid running the saw into the ground, leave limbs under the trunk and/or support the trunk on poles. Make a slant

cut as in drawing 3 to permit a log to drop without binding the saw.



Drawing 3. A felled log cut on a slope will not bind the saw.

Kinds of Wood

While generally you will cut defective trees because they improve the woodlot and appearance by so doing, you may want to separate your wood into quick and slow-burning varieties. The pines, popples, and softer woods burn faster and with greater heat... whereas the heavier oaks, maples, beeches, hickory, etc. burn more slowly and provide a more consistent fire. Some woods like apple, cherry and maple have a more pleasant aroma when they are burning than other woods. Always dry the wood under cover for a summer season before burning.

7. Storing

If the chain saw is to be stored for several weeks or months, a few precautions will help to preserve it and enable it to start easier next time.

(1) When stopping the engine before storing, permit the motor to burn all fuel out of the tank and carburetor.

(2) With a cloth, cover all bright parts of the saw with a light film of oil.

(3) Replace the saw in its original case, or place inside a box (or plastic bag) to keep all dust away.

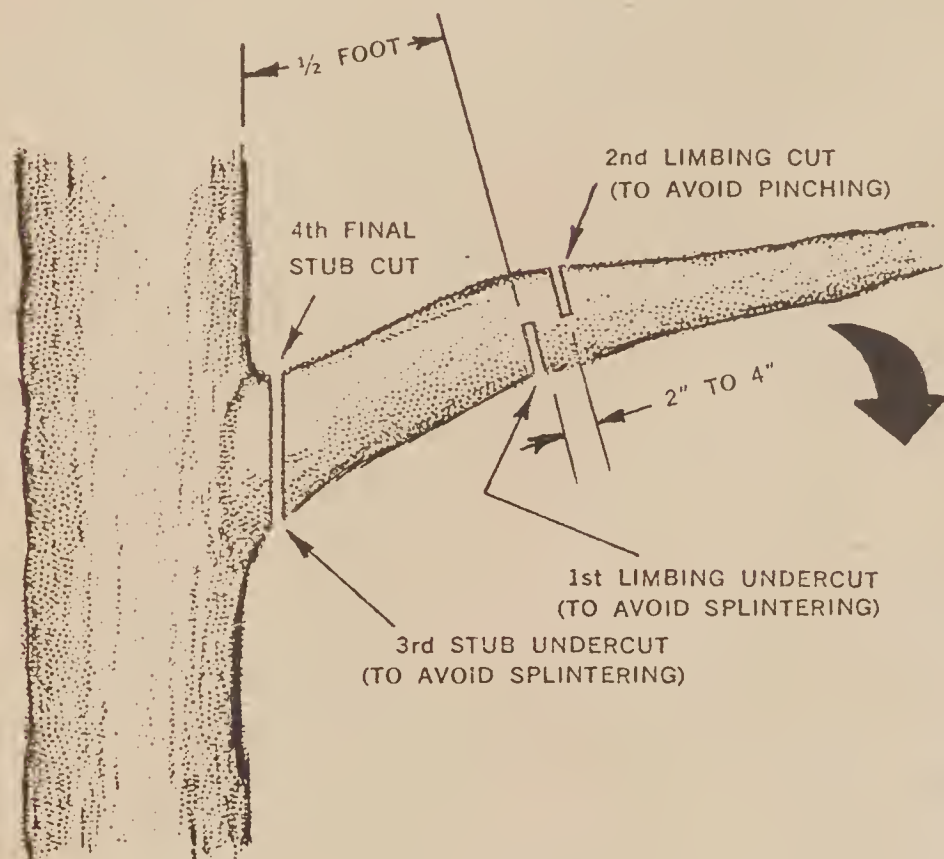


Tree Loss—Repeated severe defoliations by gypsy moths on 17,855 acres of forest in New Jersey's Passaic and Sussex counties have resulted in the loss of an estimated 1,052,200 oak trees and 47,600 hemlock and pine trees.

In 1958, before the gypsy moth outbreak began, only 6.5 percent of the oak trees were dead in the forest. As a result of 75-100 percent stripplings by the pest in 1969 and 1970, oak mortality increased nearly tenfold to 58.2 percent in 1971. Many of the pines and hemlocks died after just one severe stripping.

According to John D. Kegg, entomologist, New Jersey Department of Agriculture, who established 150 permanent survey plots throughout the affected forests, "This is the greatest natural disaster ever to occur in these woodlands since the chestnut blight swept through the region in the early 1900's."

Promising—There's real hope on the horizon for our elm trees. According to plant pathologists, new systemic fungicides... to be applied directly to trees or used as a soil drench... show great promise against Dutch elm disease. It'll be quite a wait, though; they're at least a full year away from recommendation, even longer from marketing.



Drawing 2. Four cuts are required to cut a limb from a standing tree without splintering or pinching.

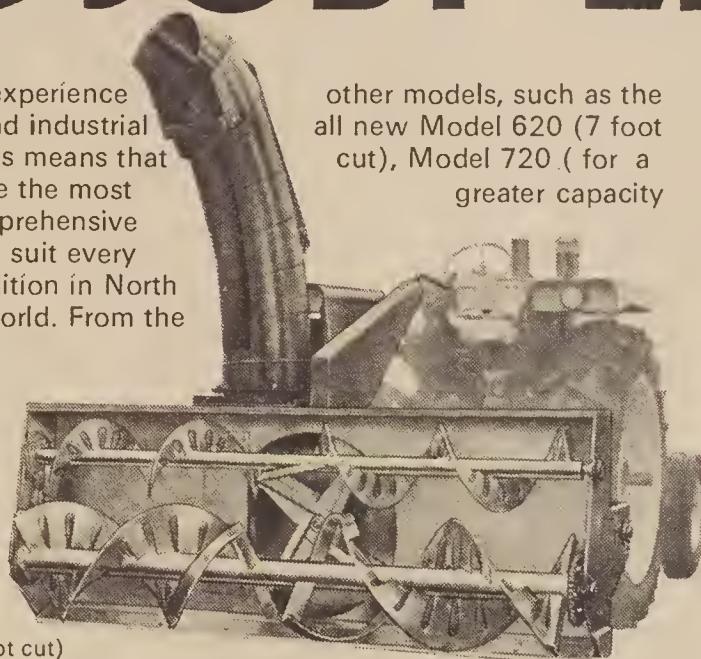
BIG JOB! LITTLE JOB!

Over ten years of experience in building farm and industrial rotary snowploughs means that McKee can provide the most complete and comprehensive range of models to suit every type of snow condition in North America—or the world. From the giant 920 which cuts a wide 9 foot swath (up to 500 tons per hour) down to the versatile 520 Model, with widths down to 5 feet. See our

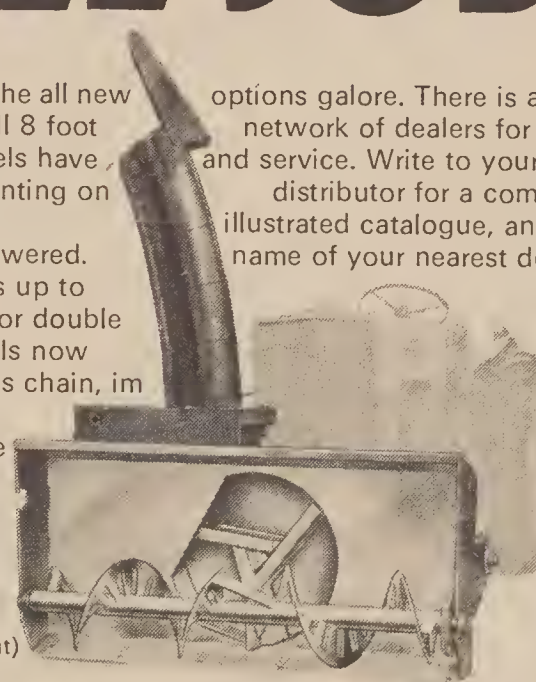
other models, such as the all new Model 620 (7 foot cut), Model 720 (for a greater capacity

7 foot cut), and the all new Model 820 (a full 8 foot cut). Most models have front or rear mounting on 3 point hitches. Some are self powered. Fits most tractors up to 125 H.P. Single or double augers. All models now feature Rust-Less chain, improved casting chutes and chute rotators, heavy duty auger shafts and bearing mounts. We have

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Model 920—(9 foot cut)



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KILOWATT REBUTTAL

After reading your editorial, "The Kilowatt Killers," I feel impelled to write you. You said, "Farmers must have electric power to operate their businesses, and should be encouraging the expansion of generator facilities."

I agree that we cannot operate a farm business without power, nor can we operate one without good productive land. I think farmers should be encouraging conservation of electric power, and do everything

they can to protect the good productive land that we still have left. Producing food, in an already hungry world, seems more important than a few more electrified beer signs!

Our family are dairy farmers living on a farm in the Schoharie Valley, approximately 1½ miles from the spillway of the Gilboa-Blenheim Power Project, now under construction. Our farm has been in the family for over 100 years. When our son received the Empire Farmer

Award, and chose farming as a career, we were very proud and happy that he would continue the family tradition.

Now we are in danger of losing our farm and our business, so that some more of our valley (which is one of the richest soil deposits in New York State) can be torn up to make room for another power dam . . . and for the accompanying recreational facilities which the Power Authority deems necessary. Acres of productive land have already been ruined this way.

Only One

Our farm is only one of the many farms that would be put out of operation by another power project. We have already given up land in our

valley for two dams . . . the Gilboa Dam (a water supply dam for New York City), and the Gilboa-Blenheim Power Project.

Through research, we have learned that hydro-electric plants, as they are being built today, will be obsolete in only a few years. Will our valley be destroyed for no real purpose? Couldn't the Power Authority find locations for their dams in unproductive areas?

Much of the good farm land that the Power Authority claimed was necessary for their present project has been set out to trees, for so-called "deer cover." Our township, Blenheim, one of the smallest in the State, already has approximately 1,100 acres of state-owned forest and brushland. So you can see how badly we needed more "deer cover!"

Difficulties

It is nearly impossible for a farmer who loses his farm to the Project to relocate his business. Sometimes the payment of money is held up for years. The farmers who were displaced by the present project have found other employment.

The Power Authority produces electricity and sells it to power companies, who in turn, sell it to the public at a profit. Even though a profit is being made here, the property owned by the Authority is completely tax free. This puts such a tax burden on the remaining taxpayers of a small town that it is doubtful if our township will be able to survive.

I hope this letter will help you understand why many farmers are standing up along with the conservation groups, blocking the construction of more generating facilities.

I hope that we, as a nation, will be intelligent enough not to let our greed for a few more needless electric appliances add to the starvation of the world. — Mr. and Mrs. Robert Wilson & Son, Royal Oak Farm, North Blenheim, New York.

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The limitation of warranty and remedy on the tag attached to each bag of Funk's G-Hybrid sold is a part of the terms of sale thereof.

DOG VACCINATION

All dog owners in 16 New York counties will be required to show a veterinarian's vaccination certificate for rabies upon application for a 1972 dog license.

According to the New York State Department of Agriculture and Markets, the counties requiring the certificate are: Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Jefferson, Livingston, Monroe, Onondaga, Ontario, St. Lawrence, Schuyler, Seneca, Wayne, Wyoming and Yates.

Since at least two distinct types of vaccine are in use today, the certificate must show that either a modified live virus vaccine was used within four years . . . or that the dog was vaccinated within the year with the killed vaccine.

If no certificate is presented with the application, the license must be refused. And if the dog is not licensed before January 1, the dog is subject to seizure and the owner required to pay a penalty.

Questions about licensing dogs or rabies vaccination requirements should be directed to the Division of Animal Industry, NYS Department of Agriculture and Markets, State Campus, Albany, New York 12226.

American Agriculturist, December, 1971

TAKE A WINTER VACATION

For years, summer has been the traditional vacation season. Lately, however, more and more people have been enjoying the Northeast's beautiful summer weather and then getting away from its snow and icy temperatures to take a winter vacation in a warmer climate.



Dates for our **Caribbean Cruise** are **February 12 to 25**, and our ship will be the luxurious **SS Raffaello** of the Italian Line. It is possible to join the cruise either at New York City or Port Everglades in Florida.

On our cruise, we will visit **San Juan, Puerto Rico**, which (although it is part of the United States) seems to be "foreign," due to its background of Spanish culture; the free port of **St. Thomas** in the Virgin Islands where you'll find bargains galore; the Dutch island of **Curacao** where Willemstad's Queen Emma pontoon bridge swings open to let us enter the harbor; **Martinique** with its blending of French and African traditions and its even temperature, varying only 5 or 6 degrees all year, and finally the lovely little island of **St. Maarten** which flies the flags of both France and the Netherlands.

At each stop there will be time for the favorite occupation of Caribbean cruises — shopping for tempting foreign goods and souvenirs at bargain prices! Plan now to go with us; there'll be plenty of entertainment, good company, and a wonderfully relaxing atmosphere in the land of bright skies, rolling seas, and exotic tropical landscapes.

Florida Circle Tour

It has been quite a while since we've offered our popular **Florida Circle Tour**, and we expect it to be a sell-out. Dates are **February 19 to March 4**.

After traveling to Jacksonville by train, our first stop will be **St. Augustine**, America's oldest city. We'll see the Fountain of Youth and old buildings in the historic area. We will also stop at **Marineland of Florida** on our way to **Daytona Beach**.

A tour of **Kennedy Space Center** and a visit to **McKee Jungle Gardens** will come next. Then, at **Lion Country Safari**, lions, giraffes, elephants, and zebras roam beside our bus as we drive along.

We'll see famed **Miami Beach**

both on land and by sea and then enjoy our Overseas Highway drive to **Key West**. In **Everglades National Park** we'll see native wildlife in abundance, including some of our northern birds making their winter home in the Everglades.

At **Sarasota** we will visit the Ringling Museums. Ringling Art Museum is said to be the most beautiful art museum in the Western Hemisphere. We'll visit all the interesting places in the **St. Petersburg-Tampa-Clearwater** area and continue to world-famous **Cypress Gardens** and the beautiful **Bok Singing Tower**.

Our last two nights in Florida will be spent at the fabulous new **Walt Disney World**. You will have unlimited use of the Park's transportation system, and admission to more than 20 Kingdom attractions.

South of the Border

From **March 2 to 19**, we will be enjoying our **Mexico Fiesta Tour**, and here are just a few highlights of this fine vacation.

Mexico City is one of the loveliest and most exciting cities in the world. The **Xochimilco Floating Gardens** will enchant us, as we ride through the canals in native "gondolas." We'll watch a performance of the **Mexical Folklore Ballet**, attend the bullfights, and see all the interesting places in and near the city.

We'll visit the colonial town of **Queretaro**, **San Miguel Allende**, and **Guanajuato**, a former silver-mining center where pure Spanish colonial atmosphere is at its best; also **Morelia** with its old-world charm and **Patzcuaro**, with a launch trip to the romantic, unspoiled island of **Janitzio**.

Taxco is a famous 16th Century colonial city. Its silver mines were worked by the Aztecs for many centuries, and you'll want to shop here for some of the lovely silver articles made by modern Mexican craftsmen.

Cuernavaca, city of Eternal Spring, is also an enchanting resort town, built in the days of Cortez. In **Puebla**, we visit the magnificent cathedral, a pottery factory and the onyx shops.

Fill out the coupon and mail it today. We'll be glad to send you illustrated, day-by-day itineraries for the trips which interest you, with complete information about costs. Look over the folders, decide which trips you want to take, and then find out for yourself how much fun it is to travel with **AMERICAN AGRICULTURIST**.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

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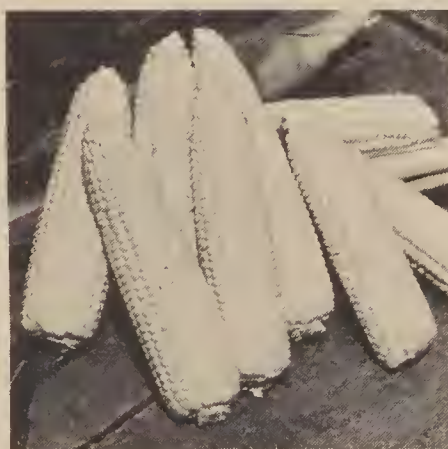


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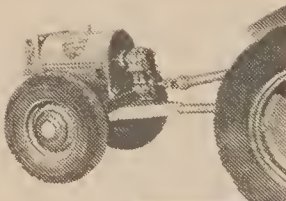
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Doc Mettler Comments on:

THE RED-NOSED RUMINANT

FOR the past several years, each December has been the kind we tend to remember as "real Christmas weather." One of these years, and perhaps this will be the one, we will have another kind of weather . . . more like what we think of as typical March, but actually also typical December.

A foot of snow and a ten-degree temperature is not only good for Santa Claus's reindeer, it's good for Farmer Jones's cattle. Let it be the other kind of December . . . with temperatures up and down from 60 degrees to 28, plus rain, fog, sleet and ice . . . and not only will Rudolph have to use his red nose, but half the cattle in the Northeast will be threatened with red nose, too!

Virus

Red nose in cattle is a common name for IBR virus infection, one of the group of infections sometimes (erroneously) referred to as the shipping fever complex. All respiratory disease, including IBR and the shipping fever complex, can vary in severity from one outbreak to the next and from one individual case to the next.

Weather conditions, ventilation, degree of stress and natural resistance all affect this severity. We cannot do a thing about weather conditions, but we can, by good management, control the others so that weather does not have to be a great factor.

In the past, I have written much about the importance of good ventilation and other aspects of controlling and preventing the so-called shipping fever-type disease. In October, a release by a veterinary supply house (Jensen-Salsbery Laboratories, Division of Richardson-Merrell, Inc.) gave me cause to want to comment on the immunity factor in the prevention of the shipping fever complex in cattle. This release concerned a whole new concept in virus disease control and prevention.

Unusual

As you know, I do not ordinarily advocate one product or type of remedy over another because I believe that it is not the method a veterinarian uses that is important, but rather the result he ends up with. This release, however, deals with a theory of virus disease prevention so new I feel that even though I have not used it, you as a cow man may be interested in how it works.

Whether you use it or not will be between you and your own veterinarian. As with any disease prevention technique, your own veterinarian . . . who knows you, your herd and your local conditions . . . is the one best qualified to judge if it is correct.

We have discussed before the idea that any herd of cattle in the Northeast should have some type of shipping fever or respiratory disease immunization every fall. Under the more modern system of cattle farming, few herds are isolated enough to avoid exposure to respiratory disease somehow during the winter, even if no new cattle are added.

We all travel to neighbor herds, and to auctions, where we can pick up virus on our clothing or feet. Milk trucks and cattle trucks come in and out of our barnyards from other barnyards, and service people . . . from A.I. technicians and veterinarians to electricians . . . travel from barn to barn. Most of them are meticulously careful, but slipups do occur. Cats, pigeons, other wild birds, wind and water can carry disease from one herd to another.

Most methods of immunization involve one or two inter-muscular injections of a bacterin, or a series of modified live virus injections during the early non-pregnant life of the heifer. These immunizations take two weeks or so to form immunity in the animal, and then are usually specific for one virus or bacteria type.

Interferon

This new type of vaccine makes use of a protein substance called interferon, instead of the antibodies in usual types of immunization. This interferon is formed by the animal when a weakened IBR virus is sprayed into the animal's nose. It is formed in a short time so there is immunity in a matter of two or three days, instead of two or three weeks. Not only does the interferon work against the specific disease vaccinated for, but it is suspected that it also works against other viruses for which we have no vaccines.

Ordinary IBR live virus vaccine cannot be used on pregnant animals because they are apt to abort. The new intranasal vaccine is reported to be safe to use even on pregnant animals. The release also states that it can be used on baby calves, providing immunity in a few days instead of two weeks, which is usually too late to prevent sickness.

Only time will tell how well this new type of intranasal vaccine will work out, but I cannot help but believe it will do all that is claimed for it.

By this time of year you should have had your herd immunized against shipping fever by some means, but if you have not, ask your veterinarian if he feels that the intranasal vaccine is indicated.

Whether this December turns out to be cold and snowy, or wet and icy, Christmas will come and the year will end. For all of you, my wish is for a happy, holy holiday season and peace in the new year.



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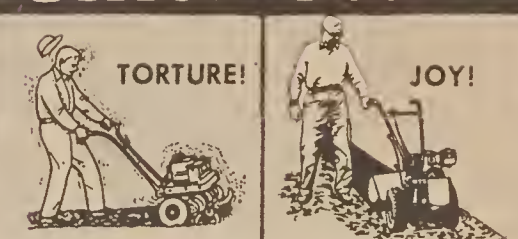
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GREEN ACRES FARM

Donald Greene and son David farm near Munnsville in Madison County, New York. About two years ago, they decided to move the milking herd out of the existing barn with its 64 tie stalls. Since then, the herd housing has gone through several transitions...including having it split between conventional barn and free-stall barn...then all quartered in the new barn...and now the conversion of the old barn to a free-stall and hay-feeding area.

Although the herd is at times fed only silages (corn and haylage) for roughage, the Greens prefer to feed some dry hay. No grain is presently fed in the double-four herringbone parlor (8 milker units), but cows come into it a bit reluctantly. A push-gate is planned...and feeding extra protein in the parlor is even being considered.

Water used to clean the milking system goes...with its detergent

Door from milking parlor to holding area at Greene Farms opens toward an island protected by pipes. Don Greene (left) and son David prefer this to a window in wall.

...into a 275-gallon tank under the parlor floor, and is subsequently used for hosing down the parlor.

The Greens looked at a number of dairy setups to get ideas for their own. One which they like is to put a door in the end of the parlor toward the holding area and free-stall barn, rather than use glass blocks for a see-through wall. The door opens on a raised island protected by pipes that keep cows off, but provide a man-pass.

Inevitably, major construction tends to tighten up available working capital. The Greens found one way to ease up the capital drain is to rent an IH1026 (110 hp) tractor, paying only for hours operated...providing big power for a limited time without the costs of ownership.

— G.L.C.

DRAFT HORSES

A member of the New York State Draft Horse Club asks "what happen" to the results of judging draft horses at the 1971 New York State Fair.

There were three breeds exhibited...Clydesdale, Percheron, and Belgian.

New York Staters exhibited all the top winners. Clydesdale grand champion stallion was exhibited by Ken Chapin of Fabius, grand champion mare by Mr. and Mrs. David Flinn of Ludlowville.

Grand champion Percheron stallion was owned by Harry Volles, Marietta...the top mare by Richard Menkins of Tully. Other exhibitors of this breed...all Empire Staters...included:

Gordon White, Manlius
Lester and Mary Green, Freeville
RMS Farms, Cazenovia

The Belgian stallion winning top prize was owned by Edward Harke of Liverpool, the mare by William Phinney of Phoenix. Other exhibitors

of this breed included (again, all Empire Staters):

Richard Hickland, Salem
Robert McNee, Delancey
John Briggs, Ithaca
George Dermody, Retsof
Vincent Warner, Masonville
Robert Latourette, Sidney Center

The only exhibitor of Belgians from outside New York was D. Morris Lamprey of North Hampton, New Hampshire.

♦♦♦

THE STRANGE CREATURE

There's a new type of creature emerging on earth
I'll describe him to you for whatever it's worth,
He comes out of hiding in winter, I'm told.
He rejoices in weather that's terribly cold.

He leaves the warm fireside, his wife and his kids,
Climbs on to a motor, a belt and two skids.
The machine comes to life, he's ready to go,
But he can't 'cause, as yet, there is no sign of snow.

For the past 18 days he's been wearing a suit
That is covered in zippers from parka to boot,
And mittens, and helmet and mask on his head,
"Good Lord" says his wife, "must you wear that to bed?"

Then it's finally happened, the ground has turned white
He's on his machine and he roars out of sight.
On the flat he'll crouch down, on a corner he'll lean.
And they tell me his blood is now pure gasoline.

Over hill, over river, through marsh and 'round trees,
Over rock pile and sandpit, yet down on his knees.
He looks like he's praying as onward he flies.
Is it monster or man? All we can see are his eyes.

He'll go charging ahead when it's twenty below,
Screaming into a blizzard of onrushing snow.

By what demon possessed is this new breed of man
Who finds joy in a snowstorm like no human can?

But what happens in summer when snows are not there?
Is he out on the porch in an old rocking chair?
No, he's inside the house for the whole world to see,
Sitting on his snowmobile and watching TV!

—Essex County 4-H News

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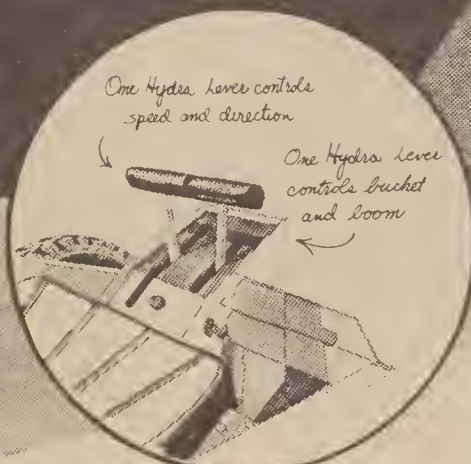
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UMP BREAKUP

by Amos Kirby
New Jersey Editor

Dairymen who were members of the United Milk Producers of New Jersey have been accepted as members by the Dairy- Lea Cooperative, or have gone with other organizations. Late count shows that the League absorbed the output of 161 dairies out of a total of about 350 that had a market through United.

United's directors and officials are working on details involved in selling or disposing of the equipment and facilities utilized in their system of milk distribution.

Producers who went with Dairy- Lea were loaned money on their September deliveries in two payments on October 10 and 25. This money is to be repaid on the basis of a 10 percent deduction from their monthly checks until the loan is repaid.

GYPSY MOTH

The gypsy moth is going to create a big problem . . . again . . . in 1972. Only three New Jersey counties are fortunate to have only a slight infestation (Gloucester, Salem and Cumberland).

The gypsy moth centers its activities on oak trees and this is the tree that is found in all areas of the state. The pine and hemlock are also threatened.

The seriousness of the situation is illustrated in surveys conducted by the State Department of Agriculture. In 1968, before the gypsy moth outbreak began, only 6.5 percent of oak trees were dead in the forest. As a result of 75-100 percent stripings by the pest in 1969 and 1970, mortality increased by nearly ten times to 58.2 in 1971. Many pines and hemlocks died after only one stripping.

The most seriously infested areas are in North Jersey.

SCREEN INSECTS

Screens keep insects out of houses, so why not use screens to keep insects out of vegetable fields? A demonstration in Delaware indicates that this may be the course to follow in the years ahead.

A test conducted in 1971 on a pepper field proved that the screening controlled corn borers, corn earworm, hornworms, cabbage loopers, aphids, and others. All this was accomplished without the use of chemical sprays.

Yields on the screened plots were 12 tons per acre of mixed (red and green) peppers up to October 7 when greens had been harvested earlier in the season. On the unprotected plot, 7.5 tons of reds, plus 1.6 tons of green peppers, had been harvested. Average yields in Delaware are about 6 tons per acre.

Cost of the black plastic netting

is \$.025 per square foot, and it should last from three to five years. It is estimated that over the three to five-year period, the cost of plastic netting would average only two cents per plant. The netting cost, of course, needs to be compared to the cost of spraying, labor, equipment and pesticides.

This will be a most interesting subject at vegetable conferences in several states this winter where production problems will be discussed.

CORN BORER CONTROL

Within a few years, growers may be controlling the corn borer by setting out a small jar filled with a million tiny wasps. The USDA and the University of Delaware have a joint venture by which this tiny wasp may solve the corn borer problem.

If the project proves successful, the corn borer damage to corn, peppers, white potatoes and even chrysanthemums may eventually be prevented.

No one need be concerned about being stung by these wasps. They are so small that 30 could fit on the head of a pin!

HARVESTERS MAKE GOOD

Despite very heavy rains that prevented the completion of the late tomato harvest, mechanical harvesters proved their worth in New Jersey.

Scores of fields could not be harvested, even with hand picking, due to excessive rains in late August and September, but the harvesters were generally satisfactory.

The same goes for the asparagus harvesters. With but one exception, the asparagus harvesters proved their worth and will most likely increase in number in 1972.

The major problem with the asparagus crop was an unfavorable price, and the establishment of the U.S. grading system contrary to an understanding that all asparagus, regardless of length of spears, would be accepted at the agreed-upon price.

OPEN BURNING

New Jersey's air pollution law, with reference to open burning, is almost as strict as laws governing the carrying of concealed weapons. Orchardists and growers with waste material do have special consideration, however. Providing the local municipality does not prohibit open burning of infested plant life, an individual may apply to the Department of Environmental Protection for a permit for the open burning of plant life, if no other effective

(Continued on next page)

American Agriculturist, December, 1971

method of disposal can be used.

Such a permit will be issued only upon certification by the Division of Plant Industry of the State Department of Agriculture.

This will solve the problem of orchardists in disposing of trimmings from orchards and trees being removed. This law does not become effective until January 1, 1973. More detailed information will be made available before the law goes into effect.

MEXICAN-AMERICANS

Look for a dramatic shift in source of seasonal workers in New Jersey for 1972. The trend will be toward Mexican-Americans from the Southwest replacing a substantial portion of those coming from Puerto Rico. This is the prediction of Arthur West, president of the New Jersey Farm Bureau.

Experience in recent years indicates that the Mexican-Americans are excellent workers. They stick on the job until their contract is completed, and they have been found to out-perform those from Puerto Rico.

In recent years, the Glassboro Service Association . . . the big Farm Bureau agency that has been contracting with the Puerto Rican government for upwards of 8,000 workers annually . . . has experienced problems. Workers accept free transportation from Puerto Rico to the U.S., then skip out after a short time, leaving the grower or the association with the transportation bill to pay . . . a loss totaling more than \$50,000 annually in the Garden State.

In 1971, New Jersey brought in 885 Mexican-Americans from Texas. This is 352 more than were imported in 1970. At the same time, there was a decline of more than 1,600 from Puerto Rico.

The Mexican-Americans are employed under a similar contract that has been established with Puerto Rico, including many fringe benefits.

BLIGHTED CORN

There is little danger of toxicity in ensiled or cribbed corn due to Southern corn blight itself. At the same time, blighted corn will be subject to secondary molds or rot infections and should be handled in the same manner as any feed of poor quality.

If it is necessary to feed moldy or rotted material, feed with caution and blend this material with quality feed. Cow acceptance of the undesirable material will be poor, and it can contribute to cows going off feed, if fed in large amounts.

In much of New Jersey, excessively heavy rains made it almost impossible for many dairymen to cut the corn at the proper stage for making good silage. This, along with the blight, has resulted in a lot of silage considered of very low quality.

This makes it important that silage and other roughage materials be tested as to feeding value. Kits for sending samples to the college are available through all extension offices.

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Mrs. Gerald Casler

MAKES WINNING

Imagine baking three cakes and winning three prizes — that's what Mrs. Gerald Casler of Fort Plain, New York, did!

Mrs. Casler had never made a chiffon cake in her life until she baked one to enter the Otsquago Subordinate Grange Chiffon Cake Contest, where her cake won first prize. She made another cake for the Montgomery Pomona competition and was again declared the winner. Her third cake went to Lake Placid with 51 others for the state finals. When the judging was over, it was discovered that Mrs. Casler's cake had received the highest score, and she was declared the "champion Grange chiffon cake baker in New York State!"

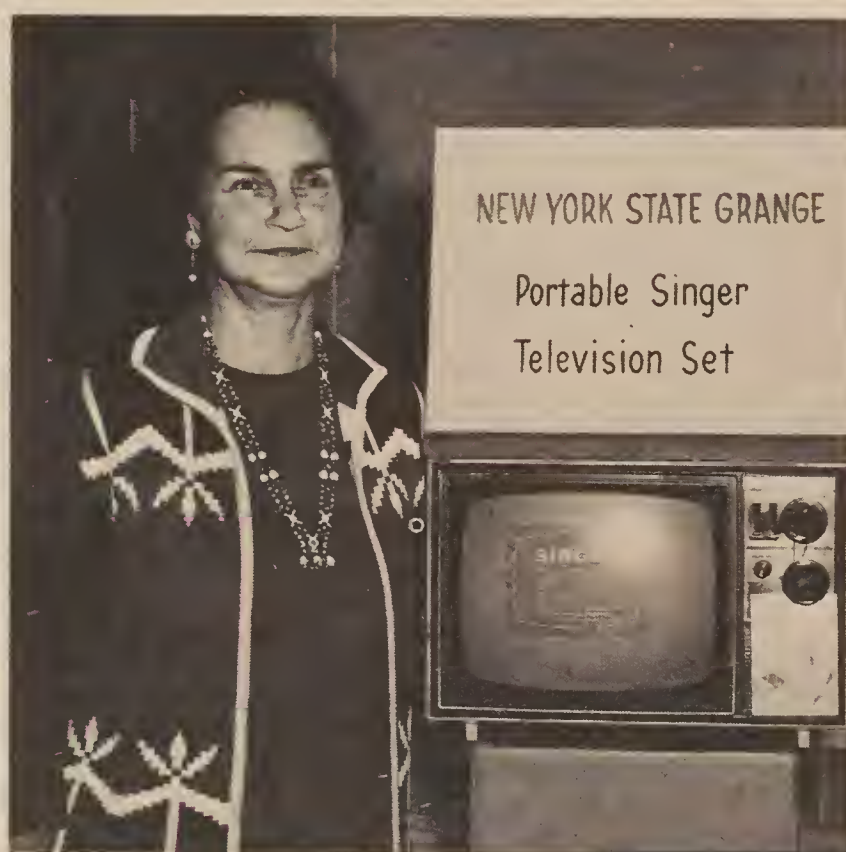
The Caslers have six children and live on a dairy farm. They have been Grangers for 27 years. Mrs. Casler is chaplain of Otsquago Grange and chairman of the County Home Economics Division of the Extension Service.

Mr. Casler told me he won the "4A" award in 1936. This was an award given by AMERICAN AGRICULTURIST to outstanding young farmers. It was presented to him during Farm and Home Week at Cornell University, and he remembers that Mrs. Eleanor Roosevelt and Mrs. Henry Morgenthau, Jr., were there for the presentation.

As the first-place winner, Mrs. Casler had her choice of the nine grand prizes and chose the portable television set given by New York State Grange. I asked her why she passed up the beautiful Monarch electric range and the Hotpoint dishwasher; she said her kitchen had been remodeled two years ago, and these appliances were newly built-in at that time.



Pictured with Mrs. Frank Stearns and Mrs. Augusta Chapman, co-directors of the Chiffon Cake Contest, are the winners present at State Grange Session when their names were announced. Left to right in picture are Mrs. Stearns, Mrs. Gerald Casler, Miss Edna Munzel, Mrs. Theron Pickett, Mrs. John Schreiber, Mrs. Fred Boyce, Mrs. Galen Barnes and Mrs. Chapman.



Winner No. 1, Mrs. Gerald Casler, had her choice of the nine grand prizes and chose the portable television set, which was a gift from State Grange.

Each of the top 10 winners received the following grocery prizes:

A case of Blue Boy vegetables in white-plate lined cans from Curtice-Burns, Inc.; a box of cheddar cheese from Dairylea Cooperative, Inc.; two boxes of Sterling table salt from International Salt Company, and a box of assorted Ritter products from P. J. Ritter Division of Curtice-Burns, Inc.

Second-place Winner

If the title, "Mrs. Grange of New York State," were to be conferred, my choice would be Florence Pickett (Mrs. Theron) of Rock City Falls in Saratoga County — second place winner in the Chiffon Cake Contest. Mrs. Pickett was Lady Assistant Steward of New York State Grange

MRS. CASLER'S CHIFFON CAKE

2 cups sifted flour
1½ cups sugar
3 teaspoons baking powder
1 teaspoon salt
½ cup Wesson oil
7 egg yolks, unbeaten

¾ cup cold water
2 teaspoons vanilla
2 teaspoons lemon juice
1 cup egg whites (7 or 8)
½ teaspoon cream of tartar

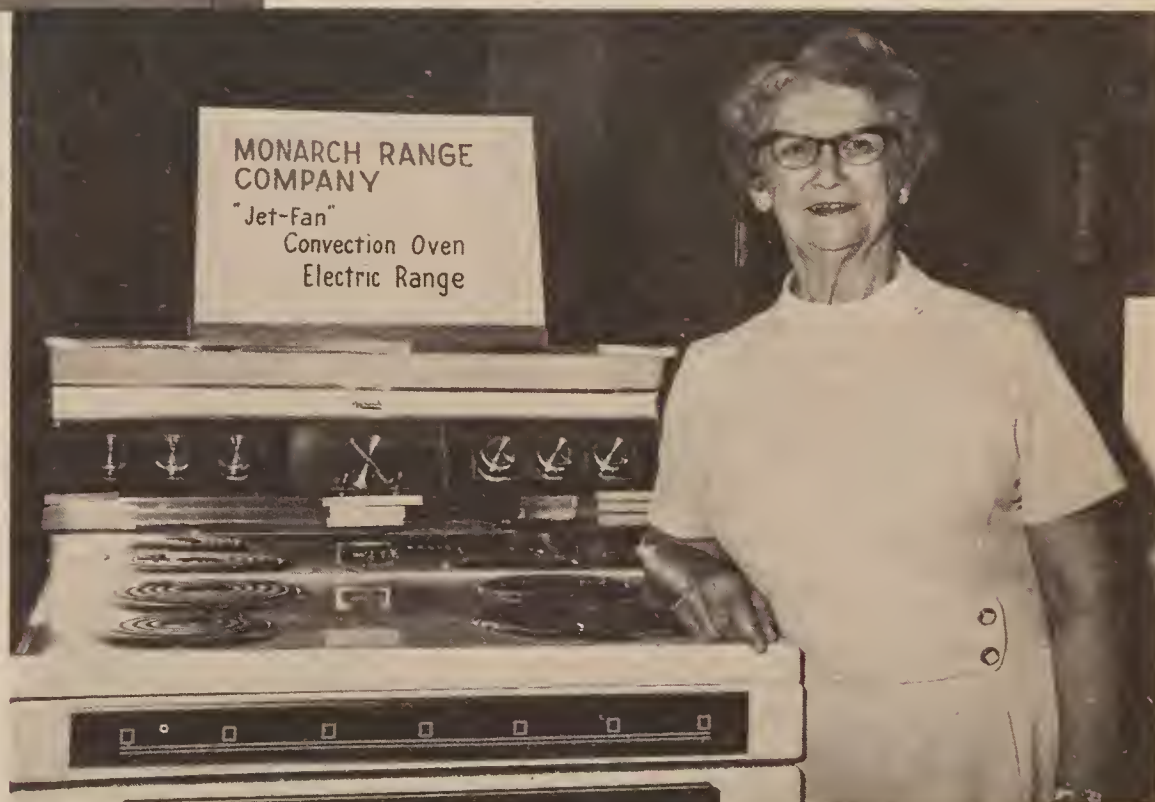
Sift together into mixing bowl the flour, sugar, baking powder and salt. Make a "well" and add in order the oil, egg yolks, water, vanilla and lemon juice. Beat with spoon until smooth.

Add cream of tartar to egg whites in large mixing bowl and whip together until whites form very stiff peaks. Pour egg yolk mixture gradually over whipped whites, gently

folding in with rubber scraper just until blended.

Pour into ungreased 10-inch tube pan. Bake at 325° F. for 55 minutes, then at 350° F. for 10 to 15 minutes. When cake tests done, invert and let hang until cold.

Editor's Note — This recipe is printed just as Mrs. Casler gave it to me at State Grange Session.



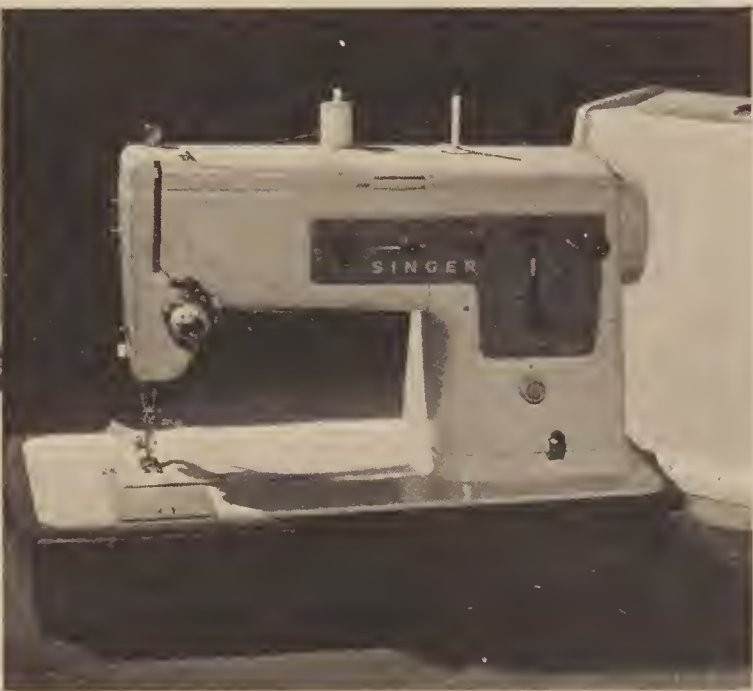
Second-place winner, Mrs. Theron Pickett, selected the "Jet-Fan" Convection Oven Monarch Electric Range. This was given by Monarch Range Company.

by Augusta Chapman, Home Editor

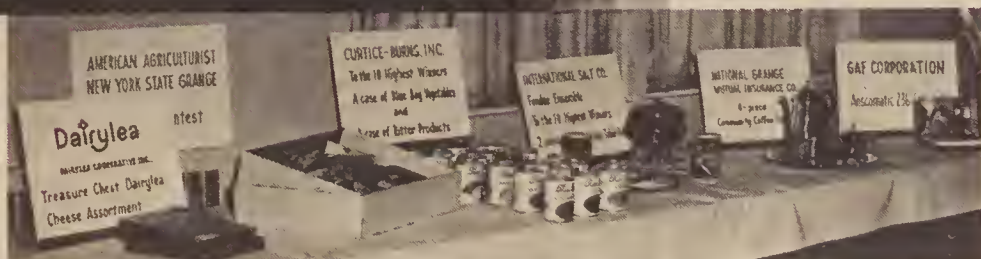
CHIFFON CAKE



Mrs. Jean Landmesser, Winner No. 3, received the Singer portable sewing machine, also a gift from New York State Grange.



Fourth-place winner, Mrs. Howard Ryder, is pictured with the cake which won for her a Hamilton Beach Mixer, given by International Multifoods.



from 1944 to 1950, State Lecturer from 1950 to 1954, and Youth Director for three years after that. For the past nine years, she has been pianist for each State Session.

Florence told me she had entered practically every contest AMERICAN AGRICULTURIST and New York State Grange have sponsored. She baked molasses cookies for her first contest—there were 13 entries, and her cookies came in 13th! Things were different after that though. She has placed among the top 15 winners several times in recent years, and in 1967 was third-place winner in the Filled Cookie Contest.

Mrs. Pickett also received her first choice of the grand prizes, the Monarch electric range, a gift from Monarch Range Company. She said her oven had not been working properly and added, "I really need that stove!"

Other Winners

Few winners were able to come to State Grange to hear their names announced on Tuesday morning, and I think this was partly because Lake Placid is less easy to reach by car than other places chosen for State

Grange Session. Also, some of the prizes never arrived for our display.

Winner No. 3, Mrs. Jean Landmesser of Chemung County, received the Singer portable sewing machine from State Grange, and we sent it home to her by State Ceres, Mrs. William Stedje.

The fourth-place winner was Mrs. Howard Ryder of Washington County. She did not get to State Grange to be included in the group picture, but came the following morning. Mrs. Ryder won the Hamilton Beach mixer, given by International Multifoods.

Miss Gladys Lyday, winner No. 5 and from Monroe County, is not new to our winner's circle either. In 1968, she was 8th place winner in the Doughnut Contest. Miss Lyday received the 48-piece set of Oneida Silverplate and chest from Oneida Ltd. Silversmiths.

The Anscomatic 236 Camera Kit given by GAF Corporation was chosen by Mrs. Ethel Krogh of Rensselaer County, winner No. 6, and to Sullivan County's Mrs. Anna Coy, 7th place winner, went the Hotpoint portable dishwasher, a gift from Agway Inc.

1. Mrs. Gerald Casler, Otsquago Grange, Montgomery Co.
2. Mrs. Theron Pickett, Milton Grange, Saratoga Co.
3. Mrs. Jean Landmesser, Veteran Grange, Chemung Co.
4. Mrs. Howard Ryder, Whitehall Grange, Washington Co.
5. Miss Gladys Lyday, Honeoye Falls Grange, Monroe Co.
6. Mrs. Ethel Krogh, Brunswick Grange, Rensselaer Co.
7. Mrs. Anna Coy, Monticello Grange, Sullivan Co.
8. Mrs. Warren Rathbun, Roseboom Grange, Otsego Co.
9. Mrs. Waverly Bartholf, Pine Plains Grange, Dutchess Co.
10. Mrs. James Marrin, Putnam Valley Grange, Putnam Co.
11. Mrs. B. Eugene Ungleich, Nelson Grange, Madison Co.
12. Mrs. M. Adelaide Penfield, West Chazy Grange, Clinton Co.
13. Mrs. Winifred Lance, Mansfield Grange, Cattaraugus Co.
14. Mrs. Susan Achilles, Enfield Valley Grange, Tompkins Co.
15. Mrs. Galen Barnes, Smyrna Grange, Chenango Co.
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17. Mrs. Ray Brocklebank, Canandaigua Grange, Ontario Co.
18. Mrs. Roger Bornt, Sherwood Grange, Cayuga Co.
19. Mrs. Lyman Pierce, Crystal Valley Grange, Yates Co.
20. Mrs. Harold Pierce, Wadhams Grange, Essex Co.
21. Mrs. Rose Holland, Evans Grange, Erie Co.
22. Mrs. John Schreiber, Huguenot Grange, Ulster Co.
23. Miss Edna Munzel, Hartland Grange, Niagara Co.
24. Mrs. Leva Williams, Morley Grange, St. Lawrence Co.
25. Mrs. Fred Boyce, Townsend Grange, Schuyler Co.

Mrs. Warren Rathbun, winner No. 8 from Otsego County, received the 4-piece Community Silverplate Coffee Service from National Grange Mutual Insurance Company. The 9th-place winner, Mrs. Waverly Bartholf from Dutchess County, won the 13-piece Fondue Ensemble from International Salt Company.

In addition to the grand prizes and grocery prizes listed above, the first 25 winners receive cash awards from AMERICAN AGRICULTURIST. Every Pomona winner who sends a cake to the state finals receives a \$3.00 entry prize from State Grange.

Judging Was Difficult

Judging is always difficult at the state finals, but in the 11 years I have been going to State Grange, I have never seen such uniform entries. Every cake there could have been a winner!

The judges were Mrs. Marjorie McIntyre, Essex County Home Demonstration Agent; Mrs. Virginia Whitney, a member of the foods staff at Keene Central School, and Mrs. Mary Wallace, a professional baker. Each judge individually scored

every cake, and then the three scores were averaged.

We want to again thank the companies that donated prizes for the Chiffon Cake Contest. We are fully aware our baking contest would not be the success it always is if it were not for the worthwhile prizes given the high state winners.

Mrs. Frank Stearns of Central Square, chairman of the State Grange Service & Hospitality Committee for 1971, and I directed the contest. We were assisted by the other two members of the state committee—Mrs. Ernest Briscoe of Unadilla and Mrs. Richard Pilc, Sr., of Cowlesville. Of course, there were hundreds of Subordinate and Pomona Service & Hospitality people who worked on the local and county contests. I always wish they could be present at the state finals to see how happy the winners are.

Next year we will have a Yeast Coffee Cake contest. This will be a repeat of our 1964 contest, one of the most interesting we have ever had. Plan now to participate, and you may be one of the high state winners at State Grange next fall!



Three judges worked many hours to score each of the 52 chiffon cakes entered in the state finals. Left to right in picture are Mrs. Virginia Whitney, member of the foods staff at Keene Central School; Mrs. Mary Wallace, a professional baker, and Mrs. Marjorie McIntyre, Essex County Home Demonstration Agent.

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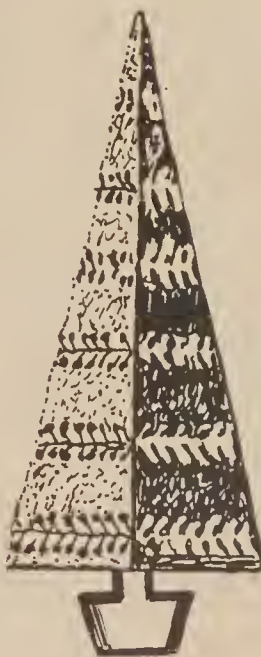
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Angel in an Apron!

by Geraldine Ross

All holidays, especially Thanksgiving and Christmas, were family affairs, inevitably held at Grandma's, with children and grownups all over the place. There simply was not room enough to seat everyone at once for dinner, so the children had to wait.



Each Christmas, we little ones gathered around a tree that towered to the ceiling. We dared not nibble the strings of popcorn or the flat pink candy ropes (the kind you never see any more) that decked its branches. We tried not to watch our parents, aunts and uncles as they emptied platters and bowls with alarming speed. Grandma, bless her,

always came soon after the first serving was completed to alleviate our fears.

"I'm saving plenty of everything," she would whisper so as not to offend those from whom it was being saved. "Plenty of chicken and dressing, and there's lots of gravy. Pie, too, mince and pumpkin, both."

"Cranberries, Grandma?" a spokesman for all of us would agonize, also in a whisper, although louder than hers. "Sweet potatoes and smashed?"

"I'll save plenty of everything," Grandma vowed again, with what patience we could not guess at the time!

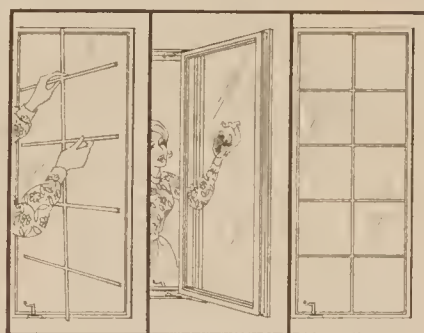
She was as good as her word, and not one parent had to coax one of us. Not one had to say, "Please, darling, eat!" Rather, each adult stood well to one side when we were invited to the table!

AROUND



the HOUSE

Every homemaker knows the more corners on a window, the harder it is to wash. If you happen to like the look of multi-paned windows but hate to think of washing them, you can now buy casements windows with snap-out grilles. Remove the grille, and it is only one window to wash. Also, usually the casement opens wide enough so the outside pane can be washed from inside the house.



Don't throw away your Christmas cards this year. You can make very attractive gift tags from them. Select the part of the design which is complete in itself. Punch a hole in the left side and tie colored cords or ribbons to the cards, leaving ends long enough to fasten the tag to a gift.



Sears has recognized the "shag boom" in home floor coverings and the special cleaning problems presented. Their answer is the new "Kenmore Shagmate."

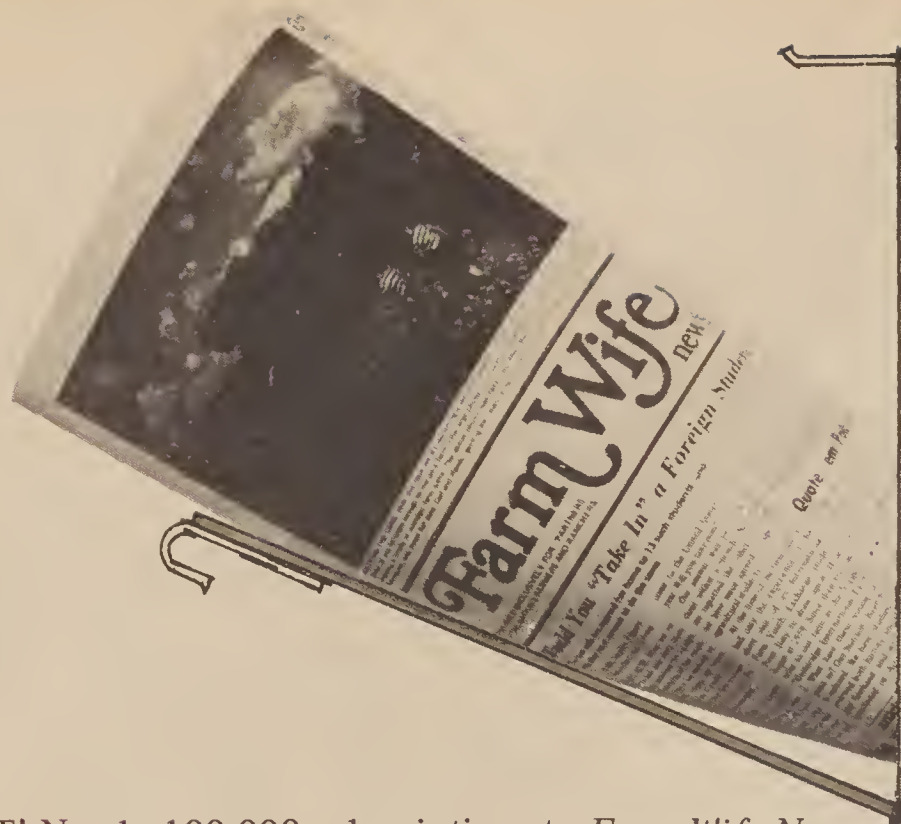
Actually the Shagmate is an all-purpose canister vacuum with several

unique attachments designed especially for shag carpets. The Shag Cleaner, shown being attached, lifts imbedded soil from the carpet backing, while the Shag Rake, on floor, surface cleans in one fast motion. The Shagmate retails for about \$99.00.



The boxes that Christmas tree ornaments come in are made of light cardboard, and often many of the ornaments get broken when stored all year long. Ask your grocer for cartons in which jars of food are packed and store your ornaments in them. These cartons are quite sturdy and will better protect the ornaments.





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In short, *Farm Wife News* is a 4-color publication exclusively FOR farm women written exclusively BY farm women. It's edited solely for farm wives—both those who are still actively engaged in farming, and those who have moved from the farm in body but not in heart.

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YOUR husband subscribes to a lot of farm magazines, right? Then he shouldn't mind your spending just \$3 for one that's edited specifically for *you*.

While you're subscribing, why not add the names of a rural friend or two who would love to receive this every-other-month publication—it's a nice way to say "I care about you." Your friend will be reminded of your gift six times through the year when each issue arrives with "THIS IS A GIFT FROM (YOUR NAME)" printed right on the mailing label.

Plus, we'll send you a gift certificate for you to mail to each of your gift recipients informing them of the subscription which will begin with the January issue. If you subscribe early enough, we'll have this gift slip in the mail to you in time to tuck into the Christmas card you send to them.

(By the way, if you should happen to subscribe for a friend who is already a paid subscriber, our computer will detect it, and we'll substitute our \$3 packet of 150 of the *best* recipes gathered from thousands of farm wives.)

So, do your Christmas shopping in just a few minutes by filling out the subscription form at right.

Psssst....DAD! Have Mom's Gift Picked Out?

HERE'S the perfect gift for your wife for Christmas—a gift subscription to *Farm Wife News*. No need to guess sizes or colors with this gift—just check No. 3 on form at right, enclose \$3, and your shopping's done. Your wife will appreciate this gift not only at Christmas but throughout the year as each issue arrives (she's just liable to bake your favorite pie each time!).

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"The mailman just interrupted me with my current copy of *Farm Wife News* and I've stood here with my jacket still on for a full 30 minutes, reading every article!"—Mrs. L. Hayna, Wheat Ridge, Col.

"I can truthfully say I cannot recall ever having picked up a magazine and then actually read it cover to cover, article by article, word by word as I did my first issue of *Farm Wife News*."—Mrs. E. K. Faltner, Harrison County, Ohio

"My wife certainly enjoyed your first issue, and I'll have to admit I enjoyed reading it, too. (If farm wives have been enjoying farm magazines all these years, what's wrong with a husband enjoying a magazine for farm women?)"—W. H. Wilkins, Pocomoke City, Md.

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- ☐ I want to subscribe only for my wife, and I've filled in her name in the coupon below.
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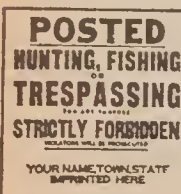
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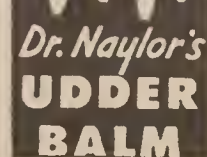
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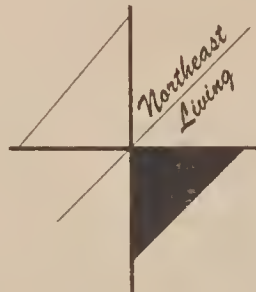
KEEP YOUR SUBSCRIPTION TO AMERICAN AGRICULTURIST RENEWED

GARDEN TALK



by Doc and Katy Abraham

Katy and I wish each reader of **AMERICAN AGRICULTURIST** the happiest of Holidays and hope that 1972 is kind to each of you. We appreciate the many nice notes we've received from AA readers, and we're looking forward to many more years of pleasant relations.



Poinsettia Care

The new varieties of poinsettia last longer than many of the older types. The red, white and pink varieties all prefer a temperature of 70° F. by day and not less than 60° F. at night.

Poor light will cause the leaves to drop. So will high temperature, too much water, not enough water and drafts. Sometimes a poinsettia has to be watered two or three times a day in the home. Avoid any practice that will injure the roots, such as overwatering, adding extra plant food, letting the soil get bone dry, or breaking the roots.

When your plant starts to fade (some varieties take forever), you can plan to grow it again for next year. Dry the soil gradually, then set the potted plant in the cellar, where the temperature will be about 50° F. Keep it slightly watered, so it won't die.

In April, cut back the plant to allow new growth to start. After danger of frost is over, set the mother plant outdoors, pot and all. It should be kept watered during the summer months and fed a liquid plant food, such as 23-19-17.

Start Training 'Em Now

Our country will be short of trained and practical horticulturists unless we start encouraging our young folk to get into the field. Winter is a good time for parents to work with children, showing them the miracle of nature in the plant world. The ordinary bean plant makes a good subject for a winter project. The bean seed grows fast and can produce edible pods right in your own home. Kids like that extra bonus.

Point out to your children that a bean seed — or any other seed — is actually an "egg," all packed up and ready to grow! If you split a bean in half, you'll find a tiny plant already formed, all set to unfold. It will be nursed along by the two kidney-shaped halves called "Cotyledons" (pronounced cottle-lee-dun). Have your children plant the bean seed in a planter or flower box and offer a prize to the one who gets the most edible pods. You could help some youngster to grow up loving plants. People who have a feeling for plants (and animals) make better citizens, and they get more out of life.

Growing Palms Indoors

One problem with palms indoors

is that the bottom leaves turn yellow and look unsightly. Most palms like a moist soil, but not one that's waterlogged or poorly drained. Drying of the roots within a planter or small container can cause harm to the tiny feeder roots palms have. Only a few palms can take a dry soil. Also, palms need protection from hot, direct sun.

When an old leaf turns yellow and brown, it's usually nothing to worry about, as palms do this in the natural process of growth. Cut leaves off, rather than tear them. Tearing the leaf sheath from the stem causes a wound and leaves an unsightly scar that could invite infection. It's a good idea to put your palm in the bath tub and syringe the foliage occasionally to get off the dust.

My good friend Russel Mott, who specializes in palm culture at Cornell University, recommends these single-stem palms for containers — fish-tail, parlor, coconut, Belmore Sentry Palm, Forster Sentry, Chinese fan palm, pigmy date palm, Chamaedorea, and the Christmas Palm.

The Largest Pumpkin

December's a funny time to be talking about giant-sized pumpkins, but I'm wondering who grew the largest one in 1971. An 8-year-old boy in Ontario, New York, Brian Pellitier, raised one weighing 157 pounds. Did anyone raise a bigger pumpkin? Please write and tell us.

Home Grown Herbs

Did you bring in a pot of parsley and chives before winter set in? If not, there's still time to start new plants from seeds, or you can still dig up the clumps. Parsley makes poor growth if you let the plants come through the winter. Next spring you might better start a new batch from seed. Meanwhile, if the weather permits, dig up a clump and bring it indoors.

AA Garden Clinic

"Is it true that Christmas tree lights will burn spots on the needles of our evergreens?"

Answer — Yes, but it's nothing serious. In early summer, take a pair of clippers and cut out the brown foliage.

GLORIOUS REFRAIN

by Roy Z. Kemp

Our thoughts may turn to Bethlehem

When Christmastime draws near,

And once again we see the star

Still shining, bright and clear;

We see the stable's manger-bed

Where Christ the Baby lay

Wrapped in His tiny swaddling clothes

Upon the golden hay.

For thoughts should ever seek to hold

Remembrance of the past,

And blessed, holy happenings

Must live — forever last.

There must not be forgetfulness!

Shout loudly this refrain,

For one day soon Christ shall return

And evermore shall reign.

American Agriculturist, December, 1971

VISITING with

Home Editor Augusta Chapman



Christmas is still the year's loveliest Holiday, despite the widespread commercialism and the fact that even we who are Christian often lose sight of its true meaning. The story of Christ's birth told in word and music, the beautiful decorations, the joy of giving to those we love, and the privilege of sharing with those less fortunate, all combine to make Christmas a Season when hearts are warmer and a little less selfish than at any other time of the year. This is

My Christmas Wish for you . . .
That you may hold forever
in your heart
the golden memories
of every happy Christmas Day
you have ever known . . .
That every gift God has given you
may grow with the years
and fill the hearts
of those you love with its fragrance . . .
And that in every hour
of joy or of sorrow
the peace-giving smile of the Christ-child
may abide with you
and keep you near to God.

St. Anthony's Guild

Valuable Information

Many of us will have poinsettias and mistletoe in our homes during the Christmas season. Did you know that mistletoe berries and poinsettia leaves can be fatal if eaten? I'm sure there's little danger of adults being poisoned in this way, but children could easily be tempted, especially by the mistletoe berries.

Other innocent looking yard or garden plants can also bring serious illness or possible death. Lily-of-the-valley, for example, can cause severe stomach pains and mental confusion if eaten; rhubarb leaves may cause convulsions, coma or death, and small red berries of the Daphne plant found on many lawns are extremely poisonous and sometime fatal. Laurel, rhododendron, azaleas and yew are other dangerous plants.

Geigy Agricultural Chemicals has published two new information pieces, "Plants That Poison," which I think every one of us should have. One is a four-page booklet and the

other a wall chart with an easy-to-read table listing the plants, which parts are toxic, and symptoms of poisoning. The charts and booklets are available at no cost by writing

Geigy Agricultural Chemicals
Corporate Communications
5300 Edina Industrial Blvd.
Minneapolis, Minn. 55435

and, of course, mention that you learned about these publications by reading AMERICAN AGRICULTURIST!

reply from Mrs. Burnett E. Tuthill, Cutchogue, New York, and I love it!

GRANDPA COULD BE WORSE

So Grandpa really irks you
With his forecast of winds and rains;
Well, perhaps, you'd rather hear about
His "old age" aches and pains.

A Grandma

Grandma Replies

WEATHER HAPPY

by Dixie Thompson

Grandpa rises first of all
His weather glass to see.
Then he spends the whole day long
Forecasting weather for me.

He tells me when it's going to rain
And when the snow will fall;
His glass has never failed him yet,
He boasts to all who call.

Oh Lord, when I am old and grey,
Grant me some other pleasure,
So I'll have something on my mind
Besides the blasted weather.

Do you remember when this poem appeared in AA's Home Department pages last February? Not too long after that, I received the following

FALL-WINTER

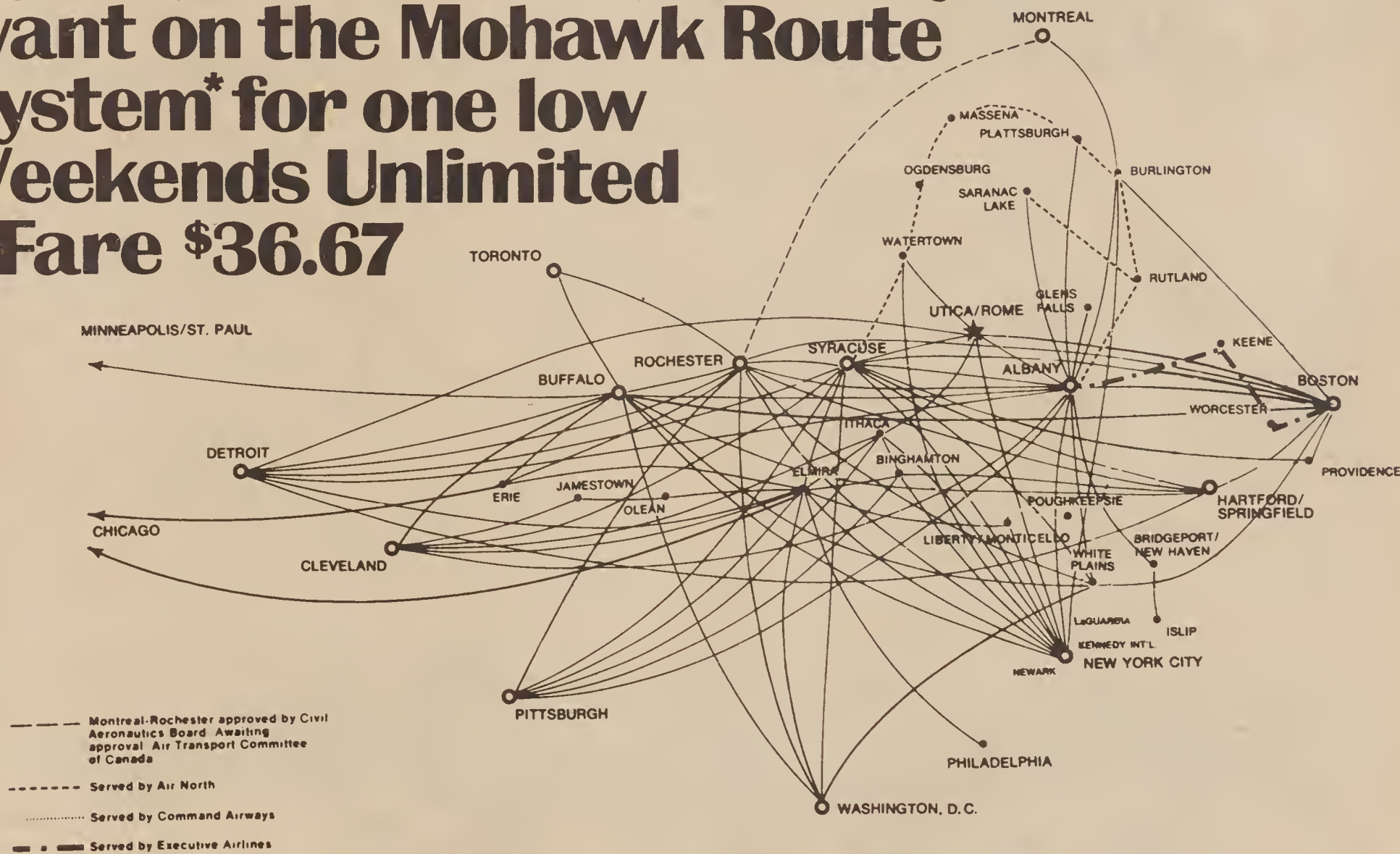
PATTERN CATALOG

Survey the entire fashion scene — the dresses, jackets, jumpers, shorts, pants and costumes in our new Fall-Winter "Fashions to Sew" Catalog of printed patterns. There are fashions for all sizes — childrens, misses, juniors, teens, women and half-sizes.

Choose any one pattern FREE from 110 designs. Just clip the coupon in the Catalog to get the one you like best. Also, included right in the book is a pattern for the natural-look bra, plus fabric and accessory tips.

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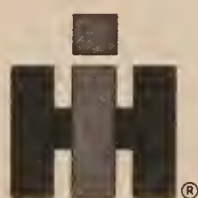
straightforward design has less to go wrong. The bearings are shrouded to prevent "wrap around." The box is penta-treated and painted to retard corrosion. Hitch brackets are big and brawny enough to withstand years of 175-bushel loads. Next time you're out our way, ask to see one of these rugged speed-demons. IH "Spreadpower" available at lowest prices ever. See your dealer for the best deal you've ever had.



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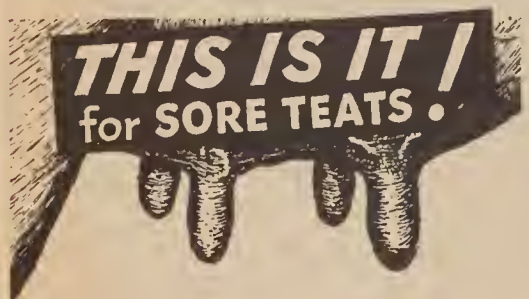
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American Agriculturist, December, 1971

Dollar Guide



DAIRY PROMOTION ORDER is being voted on by dairy-men in New York State. Dairy co-ops must notify all members by December 30, 1971 as to how leadership intends to bloc-vote on the order ... each member has until February 28, 1972 to request and return ballot to vote individually if he chooses. Independent producers should all have individual ballots by now. All producers, independent and co-op member alike, should have received a copy of the order, along with other pertinent information.

Majority of industry leaders believe that approval of the order is crucial to long-range health of dairy business in Northeast.

TAX MANAGEMENT steps should be taken before December 31. Net income can be modified for calendar 1971 by delaying sales until after January 1 ... or by stocking up on farm supplies before that date. Fertilizer can be an especially good buy in December.

Don't forget, though, that maximum social security benefits are directly correlated with taxable income levels.

FEED GRAIN PROGRAM has a sign-up period from January 17 through February 25. Program goal is to have a total set-aside of 38 million acres, more than double the 18 million acres in 1971.

Minimum set-aside will be 25 percent of feed grain base ... corn payment for idling land has been sweetened.

SLOW-MOVING VEHICLE (SMV) signs are mandatory on any vehicle traveling under 25 mph on public highways, when operated by an employee ... according to federal law.

Two northeastern states have state laws ... likely to be much more rigidly enforced than the federal regulations ... that require SMV emblems on all such vehicles. New York's becomes effective on January 1, 1972 ... and Pennsylvania's on December 11, 1971.

UNITED FARMERS OF NEW ENGLAND increased its deduction from the administrator's price to 15 cents beginning on November 1 ... 3 cents for normal cooperative membership services, and 12 cents to cover operating deficits.

Heavy supplies of milk have created competitive pressures that squeeze handlers between order-mandated prices to farmers and "soft" wholesale prices.

OPEN BURNING of leaves is legally banned throughout New Jersey as of January 1, 1972 ... one year later, open burning of practically all plant materials will be banned there.

DIETHYLSTILBESTROL (DES) must be withdrawn from the rations of all livestock 7 days before slaughter, instead of previous 48-hour withdrawal period ... under proposed restriction by the Food and Drug Administration.

HEAT-DAMAGED PROTEIN can be a problem with low-moisture silage (35 percent dry matter, or higher). If the silage overheats, it may caramelize. Cattle love the taste, and protein content may be unchanged ... but less of it is available by digestion.

Increase protein content of grain ration to compensate for the deficiency.

TAXES per capita are already higher in New York State than in any other state ... but taxpayers there are facing even higher taxes to cover a State fiscal deficit of \$750 million.

SEED CORN companies report plenty of seed with "Normal" cytoplasm. Emergency policies adopted by some companies last year ... cash on the barrel-head, and no return ... have been lifted.

IN SYRACUSE SHERATON MAKES IT HAPPEN

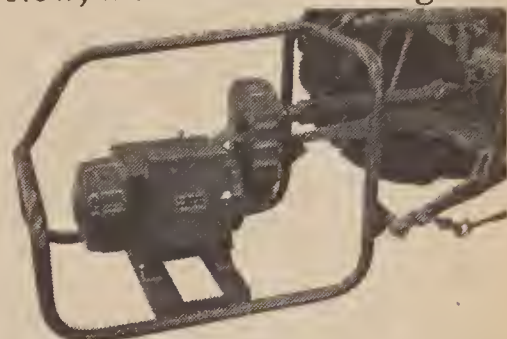
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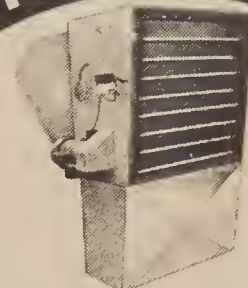


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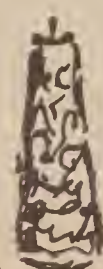
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CIRCLE B FARM purebred Charolais - December monthly rundown. Along with lots of Christmas cheer, is some advice for the coming year. You breeders raising stock or meat, should read this message short and sweet. If you are out to make it pay, then get some of our Charolais. Phone 716/928-1118 at Little Genesee, N.Y. 14754.

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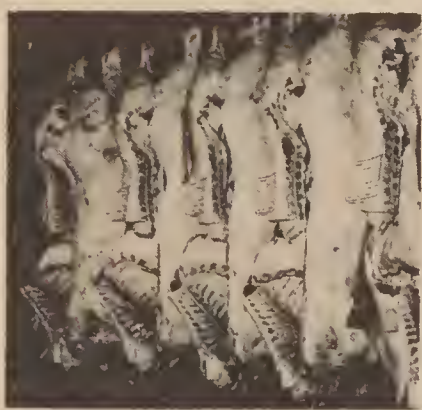
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DAIRY AND LIVESTOCK Veterinary supplies direct to you at wholesale. Send card for new wholesale catalogue. Eastern States Serum Company, 1727 Harden Street, Columbia, South Carolina.

ADVERTISING RATES

35 cents per word, initial or group of numerals. Example, J. S. Jones, 100 Main Rd., Anywhere, N. Y. Phone Anywhere 15R24, count as 11 words. Minimum charge \$3.50. Blind Box Number \$2.40 extra, includes address. Send check or money order to AMERICAN AGRICULTURIST, P. O. Box 369, ITHACA, N. Y. Advance payment is required.

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BUILDINGS, SEE OUR AD under "Equipment". Nold Farm Supply, Inc., Rome, New York 13440.

"BESTWAY ENTERPRISES" distributors of farm building materials. Stocking aluminum roofing to 30 ft. Lumber to 26 ft. Pressure treated 6x6's and planks. Quantity inquiries encouraged. Phone 607-756-7371 Cortland, New York.

BUILDINGS — 200 sizes. 40x60 - \$1700, 54x60 - \$1935, 64x96 - \$3372. (Catalog 25¢). Strat-O-Span, Gettysburg, Pa. 17325.

ATLANTIC STEEL BUILDINGS. See our ad under "Farm Buildings." We ship buildings anywhere.

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PROFITABLE HOME MAIL Order business. Details quarter. Write Kidi-Pflip-it, Box 34237, Houston, Texas 77034.

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American Agriculturist, December, 1971

FARMS FOR SALE

FARMS—DAIRY, BEEF, sheep, cash crop, vineyard—all sizes. Business, cottages, J. R. Allen, Realtor, Dundee, N.Y. 607/292-3180.

FARMS—FINGER LAKES AREA — All types and size farms. Retirement homes — hunting land. Lakeshore properties. H. M. Stocking, Broker, Dundee, New York 14837.

VIRGINIA livestock, dairy farms and country estates, P. M. Browning, Realtor, John H. Hitt, Associate: Culpeper, Virginia.

FLORIDA CHICKEN RANCH for sale. 18 acres high land, 9 houses for layers 150' x 16', 2 bedroom home and apartment. Good condition. Mrs. Ellen Moppert, P.O. #2020, Deland, Florida, 32720.

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SOUTHERN PENNSYLVANIA - 600 acres, 90% tillable, \$500.00 per acre. 155A, 145 tillable, \$79,000.00. 112A, \$49,500. 140A, dairy for 65 cows, \$95,000.00. Van Cleve Real Estate, New Oxford, Pa. 17350. Phone 717/624-8201 evenings.

MAINE FARM - Milo. 562 acres (260 rock free tillage with river bordering). Large gravel pit. Five large buildings in good condition, built for potato and vegetable storage and processing, could be converted for dairy, beef or horses. Greenhouse. Vegetable stand. Excellent 9 room home with wall-to-wall carpeting, 2 fireplaces, 2 baths and large rumpus room. \$165,000.00. H. Earl Megquier, Res. 207/797-7396. Lamb Agency, 645 Forest Avenue, Portland, Maine 04101.

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NEW YORK - SOUTHERN TIER - High producing dairy farm, bottom land, on main road, capacity for 52 milkers, 30 head livestock, completely equipped, other income, 2 family house. Large profitable operation, capacity for 200 head, all equipment completely automatic, on hard road, 2 houses. Other farms large and small. Robert S. Petzold Real Estate, 5th Ave., Rt. 17C, Owego, N.Y. 13827. Phone 607/687-0541.

PHELPS: 220 ACRE dairy farm, 38 cows, 15 heifers, complete line machinery, grain, nice home. \$95,000. Others, write us your needs. Lyon, Realty, Phelps, New York 14532. Phone 315/548-9477.

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SOUTHERN PENNSYLVANIA - 140A dairy, \$55,000, only \$10,000 down. 155A, 145 tillable, good buildings, \$79,500. 140A dairy for 65 cows, lovely home, \$95,000. 240A dairy for 90 cows, \$160,000. 624A, 500 tillable. Van Cleve Real Estate, New Oxford, Pa. 17350. Phone 717/624-8201 evenings.

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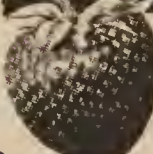
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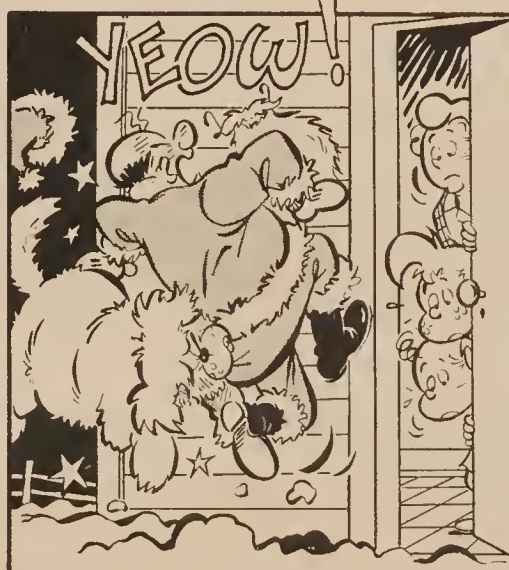
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WATCHES WANTED—Jewelry, spectacles, dental gold, silver. Prompt remittance. Satisfaction guaranteed. Lowe's, PO Box 13152, St. Louis, Mo. 63119.

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WANTED: MANUAL FOR F20 tractor. John Woodin, Sr., Hillside Lake Road, Wappingers Falls, N.Y. 12590.

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FREE WILDLIFE CATALOG: Waterfowl, Big Game & Game Bird Prints; Christmas Cards, Custom Frames, etc. Write Wildlife Reproductions, Dept. AA, 604-543 Granville St., Vancouver 2, B.C., Canada.

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MONEY IN DONUTS - make new greaseless donuts in kitchen, sell stores. Free recipes Duncan, Ray. Waseca, Minn. 56093.

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Here's a new, fast-acting treatment for those everyday cuts and bruises, scratches, burns and other superficial animal wounds. Non-drying Dr. Naylor RED-KOTE fights infection—adheres, protects, soothes and softens. Aids in stimulating new skin growth—minimizes scar tissue formation.

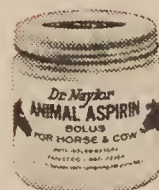
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Nick Moser, who writes "The Passing Parade" in the Reading (Pennsylvania) Eagle, comments:

"One of the finest bits of nostalgia ever to reach my desk is the late E. R. Eastman's book, 'Journey to Day Before Yesterday.' Printed in the size of an old family photo album, the book contains many pictures of yesteryear to bring back memories of those allegedly 'good old days.' The text and photos guide you into an era of the horse and buggy, the one-room schoolhouse, and the rigors and rewards of country living."



Copies of this fine book can be had, in time for Christmas giving, by sending check or money order for \$7.50 (NY State Tax included) to AMERICAN AGRICULTURIST, Department Book, Box 370, Ithaca, New York 14850.

Blowing Snow Causes Highway Tragedy

Roger Lehman, age 16, of Lowville, N.Y. was helping his father tow a car out of the ditch which had skidded off the road in front of their farm house. Blowing snow created a visibility hazard so Roger walked up the road to flag down traffic. Just then, in a swirl of snow, a car broke over a knoll and struck Roger. Rushed to the Lowville hospital Roger was then transferred to Watertown because of head injuries. Desperately they tried to save his life but the injuries were too severe. In six days medical bills ran up to \$2,171.

The Lehmans carried three North American policies on Roger. Payment of medical expense benefits was \$1,070. Two other policies paid loss of life benefits — \$1,000 plus \$500 added accumulations under one and \$1,500 plus \$750 accumulations under the other.



Mr. Bernard Virkler right, local agent from Castorland, N.Y. delivered checks totaling \$4,820.00 to Mr. and Mrs. Kenneth Lehman. They wrote this letter of thanks.

"We are thankful that we had North American protection and that Mr. Virkler called at our place several times to help us with more protection. When Roger was 5 years old we began the policies for him, then added more over the years. We know the value of the insurance since Kenneth and Anne have both used it.

North American has been good to us and we recommend it to other farm families."

Kenneth and Cleo Lehman

OTHER CLAIMS PAID

Steven Komjathy, Berne, N.Y.	\$ 305.70	George E. Strouse, Jr., Warners, N.Y.	\$1025.00
Pinned under tractor wheel—broke leg		Hit by flying nail—inj. eye	
Arthur A. Perkins, Belmont, N.Y.	129.38	Martin Courneen, Holcomb, N.Y.	812.00
Snowmobile went under fence—cut nose		Auto accident—head injuries	
John Prince, Wellsville, N.Y.	1765.00	Agnes Sadowski, Albion, N.Y.	807.86
Auto accident—broke pelvis, ribs		Slipped on ice—broke wrist	
Caroline B. Kark, Port Crane, N.Y.	278.00	Frank Bryant, Williamstown, N.Y.	1871.42
Stepped in hole—injured ankle		Slipped on floor of sleigh—broke hip	
Chester Dewey, Perryburg, N.Y.	994.44	Michael Harrison, Oneonta, N.Y.	211.58
Knocked down by cow—broke leg		Fell during gym—broke arm	
Lyle Dennison, Cato, N.Y.	348.25	Thomas Hallock, Richfield Sprgs., N.Y.	938.83
Flipped snowmobile—injured shoulder		Belt on snowmobile broke—inj. eye	
Erwin L. Forbes, Weedsport, N.Y.	428.17	Stanley A. Given, Edwards, N.Y.	186.86
Slipped on ice—broke ankle		Caught in jointer—cut hand	
Scott Green, Panama, N.Y.	365.93	Herbert H. Gardner, Richville, N.Y.	470.30
Skiing, fell—broke leg		Cleaning snow from snowblower—cut hand	
Erie Legters, Clymer, N.Y.	584.25	Owney Mathews, Odessa, N.Y.	1315.00
Fell off bike—broke knee		Caught in snowmobile track—broke leg	
Mary Hohl, Oxford, N.Y.	1112.14	Ruea Rude, Woodhull, N.Y.	1300.00
Thrown by horse—broke pelvis		Slipped on ice—broke ankle	
Emile F. Provost, Plattsburgh, N.Y.	584.67	Virginia Hayes, Savona, N.Y.	331.50
Thrown off snowmobile—inj. ankle		Slipped on wagon—broke knee	
Frank E. MacIntire, Jr., Cortland, N.Y.	201.89	Michael Callahan, Newark Valley, N.Y.	1640.00
Motorcycle acc.—broke collarbone		Auto hit cow—broke arm, shoulder	
Herman More, III, Delancey, N.Y.	1170.00	Lawrence Straight, Newfield, N.Y.	1722.30
In rear of truck hit low bridge—inj. back		Hit by snowmobile belt—loss of eye	
Ronald J. Kwilos, Hamburg, N.Y.	1068.73	Lloyd Pembroke, Walworth, N.Y.	1864.18
Motorcycle acc.—mult. injuries		Slipped, fell on ice—broke ankle	
Lowell Laverne Hamm, Oakfield, N.Y.	165.62	Roland Wolcott, Warsaw, N.Y.	332.91
Fell from ladder—injured heels		Attacked by cow—inj. chest	
Edward A. Harlow, Little Falls, N.Y.	618.51	D. J. Dunbar, Columbia Cross Rds., Pa.	535.00
Snowmobile, throttle stuck—cut leg		Tractor tipped over—broke leg	
John Carpenter, Constableville, N.Y.	549.64	Richard Marzka, Cambridge Sprgs., Pa.	1235.00
Snowmobile acc.—broke foot		Hit fence with snowmobile—cut face	
Claude Roher, Oneida, N.Y.	745.00	Paul D. Eichlin, Bloomsbury, N.J.	894.28
Snowmobile acc.—broke knee		Slipped on ice—broke ankle	
Charles Lasch, Hamlin, N.Y.	319.29	James Britton, Plansboro, N.J.	1362.18
Riding toboggan, hit bump—inj. back		Horse fell—internal injury	
George H. Brigham, Barker, N.Y.	685.03	Dora Y. Caswell, Grand Isle, Vt.	1000.00
Fell down stairs—inj. leg		Snowmobile accident—broke ankle	
Donald F. Salm, Vernon Center, N.Y.	1142.45	Margaret A. Payne, Middlebury, Vt.	380.71
Fell thru barn floor—injured back		Fell on ice—broke arm	

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...

Gene Comstock, R.D.2, Belmont, New York, would like to locate copies of old books on both a wood lathe operation and blacksmith techniques.

...

Have started collection of old key-wind clocks. If you can help, write Malcolm C. Kellogg, Scipio Center, New York 13147 stating kind and price.

ADDRESSES WANTED

Hudson F. Parks, who lived on a farm in New York in 1953-54.

...

Bruce Rhodes, last known of at Haverstraw Rehabilitation Hospital. May live in Syracuse, New York.

...

The Chapman Family, who lived in Rensselaer County, New York.

...

Any relatives of Maxine Sill, whose parents' name were William and Florence Carey Collins, and who lived on Howard Street, Syracuse, New York in 1927-28.

...

Relatives of Maud Boice, who lived for years in Ravena, New York.

...

Family of Clarissa and Harry Dopp of Coeymans, New York.

...

Descendants of Caleb Wells, born in Foster, Rhode Island; later moved to Warrensburg, New York.

...

Albert C. Hornberger, last known address East Orange, New Jersey. He worked for the American Agriculture and Chemical Co., New York City.

...

Ambrose Goewey.

...

James A. Toothaker, who was a barber in Bethel, Maine.

...

Bernice Brewer (married name unknown) who lived in New Brunswick, New Jersey.

...

Any relative of Peter and Jane Van Dusen Fero, who lived at one time in Montgomery County, New York.

...

Charles Pryor, at one time in the Western Pennsylvania Industrial Home for Boys, Oakdale, Pennsylvania.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

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Mrs. Gladys Dieter, Newfane	\$15.95
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Miss Marjorie A. Bonuat, Margaretville	11.04
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Mrs. Elmer Widrick, Croghan	11.45
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PENNSYLVANIA

Mrs. Carl Jenner, Montrose	5.76
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MAINE

Mr. L. W. Thompson, E. Waterboro	18.94
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VERMONT

Mr. Bernard W. Smith, Fairlee	16.98
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MASSACHUSETTS

Miss Rebecca Telego, Sunderland	19.95
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CONNECTICUT

Mrs. M. G. Marcy, Danbury	35.00
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CAN YOU HELP?

Wanted, for sentimental reasons, Regina Music Box with metal records. If you know of such a box, write to Miss Mary Sauers, 211 Chicago Street, Pittsburgh, Pa. 15214.

...

If you know where a plant named the Unicorn can be located, write to Mrs. Maude Wilson, 405 Manchester Street, Manchester, New Hampshire 03103.

...

Mrs. Fay Van Orden, 17252 Creek Road, R.#2, Kendall, New York 14476, would like the words to a song entitled "When the Snowbirds Cross the Valley," in which the following verse is found: "When Jack Frost is on the air, I'll come back some day to claim you, dearest Ruth so pure and fair."

...

Old calendar pictures and greeting cards of all kinds, also old postal cards before 1930 will be welcomed by Mrs. D. Clark, South Lyndeboro, New Hampshire 03082.

...

"The Master is Coming" would be gratefully received by Mrs. Walter Dalbey, R.D.1, Box 224, Schuylerville, New York 12871.

...

Parts for a cast iron wood and coal-burning Kalamazoo stove are wanted by an elderly man, Mr. N. C. Durland, R.D.1, Box 208, Monticello, New York 12701.

...

Mrs. Winifred Hill, Ellenton, Pennsylvania 17732 is looking for the book "Farming By Inches."

...

If anyone has the old editions, or any editions of "The Keeper of the Bees" by Gene Stratton Porter, and "Jack and Jill" by Louisa May

unusual barn

Prodded by the inconvenience of a century-old barn, one in which his cows could almost tangle tails across the narrow rear alley, Bill VanNostrand of Venice Center, New York, reached a decision to erect new quarters for his milking herd.

Bill recognized the labor efficiencies inherent in free stall housing, but he wasn't quite ready to accept what he considered some of its disadvantages. "I wanted a barn where both the cows and I would be comfortable, but where I'd still have an efficient operation," he commented.

Both Ways

The barn he ultimately built attains both these objectives. It's a single-story insulated structure containing 61 tie stalls. While it appears not unlike many other conventional barns, it's loaded with innovative features that ease the workload. The man-hours involved in handling milk, feed and manure have been cut to a minimum.

Bill gives much of the credit for the barn design to a dairyman he visited in Pennsylvania, Mr. Donald Hoestedder, who had erected a very similar structure.

The manure-handling system starts at the 20-inch wide, grate-covered gutters that are 24 inches deep at the upper end and drop to a six-foot depth at the lower end. A gate at this lower end can be lifted to permit periodic gravity flushing of the manure into a 100,000-gallon liquid manure tank.

How often the gutters are flushed depends on the time of year. In winter, Bill empties them about once a week. He drains his used rinse and wash water from the milkroom directly to the drops. Additional roof water is stored in a storage tank. This is pumped into the upper end of the drop after cleaning . . . so the drop partially fills with water.

Floats

"The manure tends to float," comments Bill. "When I open the end gates, I let out most of the manure and start the water pump going. I try to shut the end gate when the solid manure is halfway down so that I conserve water. It takes about half an hour to flush. In summer, there's a higher percentage of water to manure and cleaning time is only a few minutes."

Bill moved into his new barn in December, 1970. "Hopefully, we'll have 2½ months' manure storage, but maybe it'll only last two months. We plan to clean it in December, and then hope it'll take us past the worst of the winter. We get a little odor when we flush, but it doesn't last long."

Bill uses a reversible vacuum-type pump to suck the manure from the

storage tank into his spreader. When reversed, it agitates by pumping air into the tank. "With one spreader, it takes about three days to unload a full tank," he commented. "It doesn't take long to load or spread. Travel time is where the hours get eaten up."

I asked Bill about bedding. "Not much is used," he said. "We have rubber mats anchored with steel nails . . . I rented a cartridge gun to install them. If you try to use very much sawdust, quite a bit will fall in the drops where it acts a lot like sand. We probably won't spend over \$1.00 per cow per year for bedding."

The barn is designed for high-silage feeding; this also is mechanized. The silage is moved to the cows by a barn-cleaner-type feeder

controlled by a timer. Bill feeds silage twice a day, but the timer activates the feeder chain a total of six times a day . . . three at night, and three in the daytime. Each time, it runs for about one minute, moving the silage about 20 or 30 feet. "We don't feed much hay," adds Bill, "but what we do feed, we try to have of top quality so the cows don't drag it back under their feet."

Currently, Bill is feeding about seven or eight pounds of second cutting per cow per day. The hay is stored in another barn. "Feeding only that amount, it has been no problem moving it!" he added.

The VanNostrand barn is sloped 18 inches from one end to the other so that the sloping pipeline is level with barn. The gutter slope is in the

opposite direction, so that the six-foot depth is exaggerated.

The tie stalls are two sizes, 5'×76" and 4½'×72". "They're not too big for good-sized cows," says Bill. "I wouldn't change them. The cows keep clean with the electric trainers." The gutter grating is made of cold-rolled rods slid into cross supports which Bill had stamped out in a local machine shop.

Adequate insulation is combined with adequate ventilation to provide plenty of fresh air and plenty of cow comfort. The walls contain four inches of fiberglass. A ceiling combination of fiberglass and urethane results in an R-value of 19 or 20. Double plastic windows provide both insulating value and plenty of light. — William Quinn.

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"MERRY CHRISTMAS" BREADS

by Alberta Shackelton

Christmas Baking!! What reminders these two words are of the many goodies waiting to be prepared to make the coming Holiday Season a truly memorable one! Cookies and more cookies, puddings (baked and steamed), dark and light-hued fruit cakes, and breads will be filling kitchens across the land with smells of "spice and everything nice."

Why not feature breads this year for gifts from your kitchen—your own long-time favorites and one or more of those below? The first ones are Fleischmann's Yeast Company modern adaptations (Rapidmix Method) of Old World Christmas Breads; the last, Christmas Twist, is a "new twist" for an old American Agriculturist favorite printed first as Rich Christmas Coffee Cake. Wrap any one of them gayly and present with joyous Christmas greetings.

HOSKA (Czechoslovakia)

- 5¼ to 6¼ cups unsifted all-purpose flour
- ¾ cup sugar
- ½ teaspoon salt
- 2 packages dry active yeast
- ¾ cup milk
- ½ cup water
- ½ cup (1 stick) butter or margarine
- 2 eggs (at room temperature)
- ¼ cup chopped citron
- ¼ cup seedless raisins
- ¼ cup chopped blanched almonds
- Melted butter or margarine
- 1 egg
- 1 tablespoon water
- ¼ cup whole blanched almonds

In a large bowl, thoroughly mix 1½ cups of the flour, sugar, salt and undissolved active dry yeast. Combine milk, water and butter or margarine in a saucepan and heat over low heat until liquids are warm (margarine does not need to melt). Gradually add to dry ingredients and beat 2 minutes at medium speed of electric mixer, scraping bowl occasionally.

Add eggs and 1 cup flour to make a thick batter. Beat at high speed 2 minutes, scraping bowl occasionally. Stir in enough additional flour to make a soft dough. Turn onto lightly floured board; knead until smooth and elastic, about 8 to 10 minutes. Place in a greased bowl, turning to grease top. Cover, let rise in a warm place, free from drafts, until doubled in bulk, about 50 minutes.

Punch dough down; turn onto lightly floured board. Knead in citron, raisins and chopped almonds until well distributed. Divide into 4 equal pieces; set 2 pieces aside.

Divide one of the two remaining pieces into 3 equal strips, about 14 inches long. Place these three strips on a large greased baking sheet; form into a braid. Brush top of braid with melted butter or margarine.

Divide two-thirds of the second piece into 3 equal strips about 12 inches long. Form into a second braid, place on top of first braid and brush top with butter. With remaining dough from this second piece, make a third braid about 10 inches long and place on top of second braid.

Form second braided loaf with the reserved dough. Cover braids and

let rise in a warm place, free from draft, until doubled in bulk, about 1 hour. Beat egg and water together until well blended. Brush braided loaves with this mixture; decorate with whole blanched almonds. Bake in a preheated moderate oven (375°) 35 minutes or until done. Remove from baking sheets and cool on wire racks.

Knead dough on a lightly floured board until shiny and elastic, 5 to 8 minutes, adding flour as necessary (not too much). Round up dough and place in a greased bowl. Cover bowl and let rise in a draft-free location, 40 to 60 minutes, until double in bulk. Punch down dough and knead lightly.

Roll out dough to an oblong about

ly browned on top. Remove from oven to rack and while still warm, drizzle over each twist the confectioners' sugar and orange rind moistened with the light cream and decorate with pecan halves. For extra color, you may scatter bits or rings of candied cherries as well.

PANETTONE (Italy)

- 4½ to 5¼ cups unsifted flour
- ½ cup sugar
- 1 teaspoon salt
- 2 packages active dry yeast
- ½ cup milk
- ½ cup water
- ½ cup (1 stick) butter or margarine
- 3 eggs (at room temperature)
- ½ cup chopped citron
- ½ cup seedless raisins
- 2 tablespoons pine nuts
- 1 tablespoon anise seeds
- 1 egg
- 1 tablespoon water

In a large bowl, thoroughly mix 1½ cups flour, sugar, salt and undissolved yeast. Combine milk, water and butter or margarine in saucepan. Heat over low heat until liquids are warm (margarine does not need to melt). Gradually add to dry ingredients and beat 2 minutes at medium speed of electric mixer, scraping bowl occasionally.

Add eggs and ½ cup flour, or enough flour to make a thick batter. Beat at high speed 2 minutes, scraping bowl occasionally. Stir in citron, raisins, pine nuts and anise seeds. Add enough additional flour to make a soft dough.

Turn out on a lightly floured board; knead until smooth and elastic, about 8 to 10 minutes. Place in a greased bowl, turning to grease top. Cover, let rise in warm place, free from draft, until doubled in bulk, about 1 hour. Punch down dough. Cover, let rise again until almost double, about 30 minutes.

Punch down dough again and turn onto lightly floured board. Divide in half and form into round balls. Place on opposite corners of a greased baking sheet. Cut a cross ½-inch deep on top of each ball. Cover and let rise in a warm place until doubled in bulk, about 1 hour.

Beat egg with water and use to brush top of breads. Bake in moderate oven (350°) 35 to 45 minutes, or until done. Remove from baking sheet and cool on wire racks.



Photo: Fleischmann's Yeast

Doesn't this picture of two "Old World" Christmas breads — Hoska and Panettone — make you want to start baking for the coming Holidays?

CHRISTMAS TWIST

- 1 package dry yeast dissolved in
- ¼ cup lukewarm water
- ¼ cup scalded milk, cooled
- ¼ cup sugar
- ½ teaspoon salt
- 1 teaspoon vanilla
- 1 teaspoon grated orange rind
- 1½ whole eggs
- 2 to 2½ cups all-purpose flour
- ¼ cup soft butter
- Soft butter for spreading
- ½ cup sugar mixed with
- 1 teaspoon cinnamon
- ¾ cup candied fruit
- ½ cup raisins
- ¼ cup coarsely cut pecans
- 1½ cups confectioners' sugar
- 1 teaspoon grated orange rind
- 1 to 2 tablespoons light cream
- ¼ cup pecan halves

Combine dissolved yeast, cooled scalded milk, sugar, salt, vanilla and grated orange rind. Beat in eggs (to measure half an egg, beat egg slightly and use 2 tablespoons). Add just enough flour for a medium-soft dough. Work in soft butter with a spoon.

20 x 6 or 7 inches in size. Spread dough generously with soft butter and sprinkle with the sugar-cinnamon mixture. Arrange candied fruit, raisins and nuts evenly over top.

Roll up the oblong tightly, starting at the long side; butter outer edge and pinch it to roll to seal. Cut roll in two parts. (If you find this too long an oblong to roll easily, you may cut the fruit-spread oblong into two and roll each half separately, sealing edge of dough on each.) Place each roll on baking sheet, seam side down, one on each side of pan.

Now for the "twist." Slash almost through each roll with scissors (dip in flour between slashes) at 1-inch intervals, into an equal number of slices preferably, then turn first slice to one side, next slice to other side in figure 8-fashion, and so on to end of roll.

Let twists rise until double in bulk, about 30 minutes, and bake on center rack of a preheated moderate oven (350°) about 25 to 30 minutes, or until they test done and are light-





Left to right: Gary and Greg Van Slyke, Agway's Harold Barkewitz and Kenneth Van Slyke discuss latest Agway Dairy Feeding Profile.

"Harold doesn't work for Agway—he works for us."

Gary Van Slyke, Pike, N.Y.

Gary and Greg Van Slyke manage a 900-acre dairy farm near Pike, N.Y. in partnership with their father, Kenneth. They have a lot of confidence in Harold Barkewitz, an Agway Farm Enterprise Salesman.

"In six years," said Gary, "Harold helped us grow from a 54-cow herd into a profitable 250-cow operation. Our herd average climbed from 13,400 lbs. with 54 cows to 14,000 lbs. with 250. Following his advice has paid off."

"For example," added Greg, "we set up a group feeding program where cows are fed according to their productivity. As a result, feeding efficiency was greatly improved. Harold also advised us to store high-moisture corn, to cut down on the amount of grain we had to buy. Not the kind of recommendation you expect from a man who sells you feed."

"Thanks to Harold, we were one of the first farms to go on the Agway Dairy Feeding Profile," said Kenneth Van Slyke. "It tells us exactly how each cow is doing and shows how our operation stacks up against others of the same size."

"He has been so helpful that we don't think of him as a salesman at all," Gary concluded. "Harold doesn't work for Agway—he works for us."

You can get a man like Harold Barkewitz working for you to increase your production and profits. All it takes is a call to your nearby Agway store or representative.

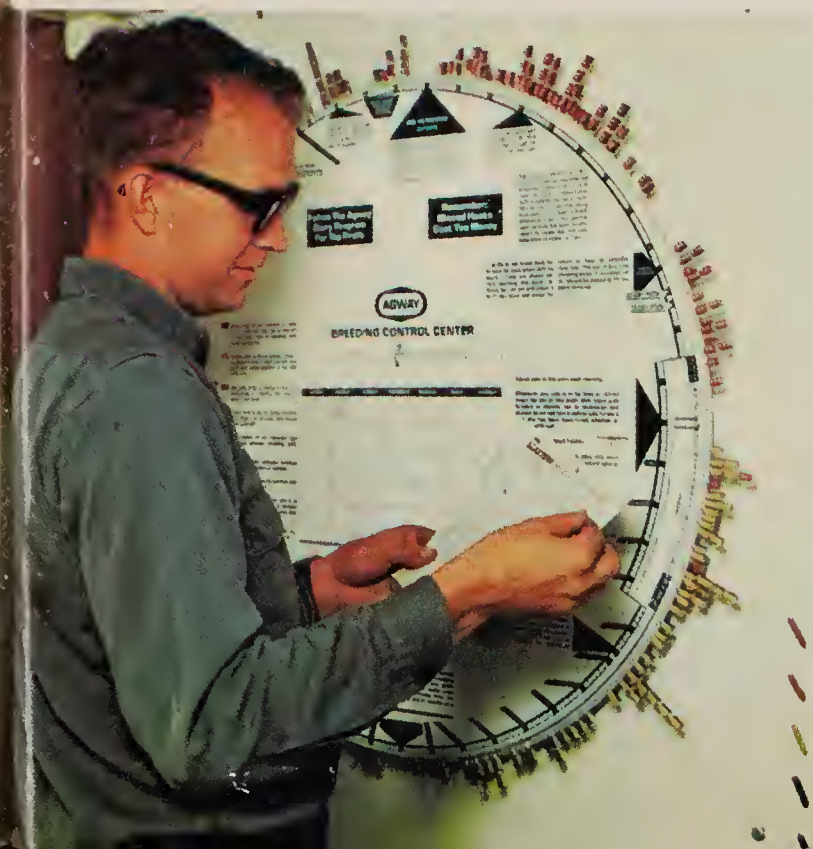
Farm Enterprise Service

AGWAY

Greg Van Slyke, herd manager, checks Agway Breeding Control Center daily on each cow's breeding and health status.

The Van Slykes raise all their corn for silage and have been averaging 16 tons per acre.

Gary Van Slyke is responsible for the farm's crops—400 acres of corn and 230 acres of hay.



The "Warranty on Wood" Only New Idea has it.

Our new "Warranty On Wood" may not be the reason why most farmers would rather own a New Idea spreader. It's probably the penta-treated solid wood box, itself. The warranty is just to reassure any Doubting Thomases. The farmers who wonder if wood outlasts sheet metal or plywood. Here's how the warranty reads:

"In the unlikely event that any of the wood components in your New Idea Manure Spreader rot through, Avco New Idea will make replacement, no charge. Replacement will be made without cost to you, the original purchaser, at your nearby New Idea dealer . . . no charge for wood, no charge for labor or freight."

Repeat. No charge for wood. No charge for labor or freight.

Add to this our heavyweight construction, the choice of spreading mechanisms, types, sizes (up to 318-bushel) . . . choice of endgates and pan attachments for handling sloppy manure . . . and you begin to get the picture. Who else but New Idea could come up with a Warranty on Wood? It's another good idea from the No. 1 name in the business for more than 70 years.



Coldwater, Ohio 45828



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